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IMPACT: Measuring Success

AADAC

Policy and
Program
Analysis



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IMPACT: MEASURING SUCCESS

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Policy and Program Analysis

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EXECUTIVE SUMMARY

IMPACT is an intensive weekend program designed to intervene and help participants determine the nature and extent of their alcohol and/or drug use problems. Through structured group exercises, participants gain insights about the consequences of their mood altering drug use and plan strategies for dealing with such consequences as impaired driving. The underlying assumption is that by addressing offenders' substance use problems, repeat impaired driving will be reduced. AADAC has offered the IMPACT program since December, 1985.

Prior to 1985, AADAC offered a one day impaired driving program aimed at all persons convicted of impaired driving, the Alberta Impaired Drivers' Course (AIDC). In the early 1980's about one third of the AIDC participants were repeat impaired driving offenders, many of whom had already taken the course (AADAC, 1983-84). AADAC developed the more intensive IMPACT program for these repeat offenders. In 1987, AIDC was revised and is now called Planning Ahead. It is less intensive and targeted at first offenders.

From August 1988 to September 1989, the IMPACT Outcome Study was conducted to examine the outcome results of the program. The study consisted of two major sets of research activities: (1) analysis of records (driving records, AADAC records); and (2) telephone interviewing of IMPACT participants.

The analysis of records involved two samples of participants who had attended AADAC impaired driving programs during the 1986/87 fiscal year. There was a large sample (n=505) of IMPACT participants and a sample (n=300) of participants from the Alberta Impaired Driving Course (AIDC). The AIDC sample was included to permit comparison of impaired driving recidivism.

The telephone interviews involved a sub-sample (n=167) of participants from the larger IMPACT sample. Participants were interviewed between November 1988 and March 1989. For all three samples, the follow-up period range was from 1.5 to 2.5 years after program attendance.

The overall purpose of the study was to examine the outcome results of the IMPACT program. In the context of this overall purpose, there were five study objectives. The study objectives and highlights of the major findings are presented below:

1. **To determine if IMPACT has any positive effect on impaired driving recidivism.**

IMPACT has a positive effect on impaired driving recidivism. Studies monitoring repeat impaired driving offenders without any type of impaired driving program report recidivism rates of 20% to 30%. AADAC records have shown that the initial one day educational program (AIDC) for all types of impaired driving offenders resulted in a revidivism rate of about 30%. Studies examining impaired driving offenders of various types of treatment programs report lower recidivism rates ranging from 6.1% to 21.8%. The IMPACT and AIDC recidivism rates in this study were well within this lower range.

- * Post-program, the impaired driving recidivism rate for IMPACT and AIDC was 11.6% and 11.1% respectively.

In other words, 88.4% of IMPACT participants were not reconvicted for impaired driving in the follow-up period. Even though the participants of IMPACT have more serious impaired driving problems than AIDC participants, the recidivism rates were very similar for the two programs. It is likely that the intensity of the IMPACT program compared to AIDC is having a positive effect on impaired driving recidivism for more serious offenders.

Other noteworthy findings related to impaired driving were found.

- * For IMPACT and AIDC participants, impaired driving recidivism was more likely to occur within the first year after program attendance.

- * Post-program, a substantial proportion of participants of both IMPACT and AIDC received other non-alcohol related driving convictions (e.g. speeding), 36.6% and 35.5% respectively.

There maybe certain periods of time post-IMPACT in which participants are at higher risk for impaired driving recidivism. As well, the sizeable percentage of other driving convictions may indicate that some participants have driving problems (e.g. driving skills) which in combination with substance use may result in impaired driving convictions.

2. To examine changes in IMPACT participants' pattern of mood altering drug use and level of functioning in various major life areas (e.g. family life, job).

Participants' mood altering drug use and functioning in major life areas improved during the follow-up period.

- * The large majority of participants (82.9%) reported using less alcohol and/or drugs since attending IMPACT.
- * Most participants (57.4%) indicated that they used substances mainly on weekends post-IMPACT; whereas, daily use was the most common (48%) pattern reported during the year prior to IMPACT attendance.
- * About half (45.5%) of the participants interviewed, reported periods of abstinence during the follow-up period.
- * Significant improvements were revealed in the major life areas of physical health, job and/or school, social and leisure, and family life. For example, more (67.1%) participants reported full-time employment at the time of the telephone interview than at the time they attended IMPACT (53.3%).

- * Almost half (43.8%) of the participants' commented that since IMPACT they have been involved in social activities that do not involve alcohol and/or drugs and they enjoyed it.

3. To examine participants' post-IMPACT behaviors such as follow through on IMPACT referral recommendations and strategies to avoid impaired driving.

IMPACT participants reported taking action towards either avoiding impaired driving or dealing with their substance use problems.

- * Taking a taxi (86.9%) and asking someone else to drive (81.0%) were the two most common strategies for avoiding impaired driving.
- * Going to the bar less often (82.2%) and limiting the amount of alcohol and/or drugs consumed (76.0%) were the two most common strategies to reduce substance use.
- * Most (70.6%) of the IMPACT participants interviewed received at least one or more referral recommendations at IMPACT.
- * About half (44.9%) of the IMPACT participants who were interviewed reported following through on an IMPACT referral recommendation and the two most common recommendations followed were to AADAC and Alcoholics Anonymous (AA).
- * A substantial proportion (25.7%) of participants did not contact formal help; instead, they preferred to make changes on their own.

4. To examine the characteristics of participants who do well and who do not do well after the IMPACT program.

The study looked at participants' reactions to IMPACT and also at characteristics of participants who benefitted from the program. Overall, participants interviewed were satisfied with the program and felt they had received some beneficial effects from IMPACT.

- * The vast majority (89.5%) of participants were either somewhat satisfied or very satisfied with the IMPACT program.
- * The vast majority (86.2%) of participants interviewed thought the program helped them somewhat or a great deal to prepare for high risk situations that might result in impaired driving.

Differences in how well participants functioned after IMPACT were influenced by the seriousness of participants' alcohol and/or drug use problems.

- * Participants assessed as social or harmfully-involved users of alcohol and/or drugs were more likely to:
 - make changes on their own after IMPACT
 - use strategies to avoid impaired driving
 - contact AADAC rather than AA, if they decided to contact a group for help.
- * Participants assessed as dependent users of alcohol and/or drugs were more likely to:
 - reoffend for impaired driving
 - utilize support from family and friends
 - choose abstinence
 - contact AA and/or AADAC

Although more participants with serious substance use problems are going to treatment, they are also the ones most likely to be reconvicted for impaired driving post-IMPACT. For example, 78.3% of the participants who reoffended post-IMPACT had contacted AADAC or a Funded Agency. Moreover, about half of these participants reoffended after they were admitted to treatment. A closer look

at treatment attendance, revealed that most of these participants only had one or two visits at an AADAC or Funded Agency outpatient facility. Such brief participation in treatment is unlikely to result in immediate and long lasting behavior change. Rather, behavior change is a gradual process involving a series of periods of improvement followed by relapse and then some further improvement. For these participants, a more extensive abstinence based type of treatment is required.

5. To determine if these characteristics are useful predictors of impaired driving recidivism and referral compliance.

Three categories of factors were examined in relation to the number of impaired driving convictions and admissions to AADAC and Funded Agencies post-IMPACT. The variables included: (1) demographic factors such as age; (2) driving record factors such as number of previous impaired driving convictions; and (3) severity of mood altering drug use problems.

- * The analyses did not reveal any useful predictors of impaired driving recidivism or follow-up on referral recommendations to AADAC and Funded Agencies.

In part, this finding may reflect the complexity of factors that influences impaired driving behavior. Some of the participants' comments suggested that there were many factors that accounted for their improved driving behavior which makes it difficult to isolate specific predictors. For example, some participants stated that it was a combination of factors such as licence suspension, fines, legal fees, insurance costs, the effect on their jobs, relationships with family and friends as well as IMPACT that influenced the changes they made during the follow-up period. **IMPACT helps by providing participants with an opportunity to review these life events from a different perspective and then assists participants in developing strategies to deal with their problems.**

Recommendations

The recommendations arising from the study are as follows:

Recommendation #1: That the IMPACT program continue to be delivered.

Rationale #1: Study participants benefitted from the IMPACT program. The vast majority (88.4%) of participants did not reoffend for impaired driving during the follow-up period. The impaired driving recidivism rates were similar for IMPACT and AIDC. Given the more serious impaired driving problems of IMPACT participants and the intensity of the IMPACT program compared to AIDC this suggests that IMPACT is having a positive effect. As well, other indicators revealed positive changes during the follow-up period. Alcohol and/or drug use decreased and participants were functioning in different areas of their lives. Participants achieved these positive outcomes by taking specific action to avoid impaired driving and/or deal with their substance use problems.

Recommendation #2: In future program development, consider the possibility of designing a follow-up component to the IMPACT program.

Rationale #2: Impaired driving recidivism was more likely to occur within the first year after IMPACT attendance. As well, some participants indicated that they felt IMPACT had a positive effect, but that the effect was temporary. That is, gradually over time it became more difficult to refrain from drinking and driving. Possibly, a follow-up component to the program would assist participants through this high risk period and it would help participants address difficulties encountered in using different strategies to avoid impaired driving. This might be achieved in a variety of ways. One option might be to educate participants in the program on the chances of recidivism, when it is most likely to occur, and discuss ways to prevent it including following referral recommendations. Extending this further, another possibility might be to send the IMPACT Assessment Summary to the Driver Control Board (DCB) for high risk participants assessed as dependent. As a counselling and enforcement agency, DCB has the authority to set additional conditions for drivers licence reinstatement such as following IMPACT referral recommendations.

Recommendation #3: In future program development, consider the importance of informal support networks as a resource to help participants achieve lifestyle changes they have identified.

Rationale #3: The study findings highlight the importance of social support both as a facilitator and barrier to behavior change. A positive finding was that many of the participants assessed as having more serious substance use problems indicated informal support from family and friends and attending AA as action they had taken post-IMPACT to deal with their problems related to alcohol and/or drug use. However, there were also some findings indicating that family and friends sometimes inhibit participants efforts to change. Almost two-thirds of participants reported some drinking and driving behavior by family and/or friends suggesting that it is fairly common behavior in their social contexts. As well, a few participants commented that when they reduced their drinking, they felt social pressure to drink and they had no social life. It would be useful to increase participants' awareness of the influences of family and friends and help them prepare for dealing with such issues. One way to achieve this might be to place greater emphasis in the program on informal supports, for example during the small group session on high risk situations. Another possibility might be to incorporate a family component into the IMPACT weekend. Perhaps on Sunday of the program, participants' significant others (e.g. spouses) might attend a group session that would provide information on addictions and involve them in participants' action plans post-IMPACT

Recommendation #4: In future program development, explore possible mechanisms whereby participants with more serious alcohol and/or drug use problems are facilitated in entering more extensive treatment services.

Rationale #4: The study findings suggest that there are a small number of participants with more serious alcohol and/or drug use problems who are reoffending for impaired driving after attending IMPACT, even though they have taken some type of remedial action. For example, findings from the large IMPACT

sample showed that a larger proportion of those assessed as dependent were reconvicted for impaired driving and admitted to AADAC and Funded Agencies than those assessed as social or harmfully-involved users. However, the interview findings indicated that most of the participants who reoffended and were admitted to AADAC and Funded Agencies only had one or two outpatient treatment visits. The higher impaired driving recidivism rate for this group suggests that brief outpatient treatment is insufficient to address their problems. Rather, these participants would probably benefit from more extensive abstinence based treatment services. This might be accomplished with the assistance of the Driver Control Board (DCB). For example, DCB could require that high risk participants, such as those assessed as dependent, maintain a period of abstinence in order to have their drivers licence reinstated. It would be participants' responsibility to decide on how to achieve this goal and with what resources. As well, participants would be responsible for supplying evidence of their abstinence to the board such as by obtaining a reference from an AA sponsor.

Recommendation #5: In future program development, more emphasis should be placed on Driver Education referral recommendations.

Rationale #5: This study found that over a third of the IMPACT participants were reconvicted for other non-alcohol related driving offences post-IMPACT. This may indicate that some participants have driving problems as well as substance use problems which in combination result in impaired driving convictions. Such participants may benefit from a course designed to improve driving skills and attitudes.

Recommendation #6: Continue to monitor outcome results of the IMPACT program.

Rationale #6: Continued monitoring of outcome results of the IMPACT program would be useful for two reasons. First, the rare occurrence of detected impaired driving makes it difficult to detect changes in recidivism rates without long follow-up periods (e.g. 5 years). Further research could examine whether or not the current

recidivism rate of 11.6% is maintained in the long term. Second, it would be useful to determine the outcome results for participants completing the current IMPACT program. Program changes were introduced in May 1988 which might influence the outcome results of participants completing the program after this date.

1. INTRODUCTION

During the past year the IMPACT Outcome Study was conducted to examine the outcome results of the IMPACT program. This report presents the findings of the study. Specifically, this report describes the study objectives, the IMPACT program, methodology, major findings, conclusions and recommendations arising from the research.

Although key indicators show that impaired driving problems have started to decrease across Canada, impaired driving still remains a serious social problem (TIRF, 1987). In Alberta, the societal costs from impaired driving run into millions of dollars each year. In response to this problem, AADAC offers two impaired driving programs. Planning Ahead is a one day course for first offenders and IMPACT is a more intensive program designed for repeat offenders.

AADAC developed IMPACT in response to the large number of repeat offenders attending the one day course (Davidson, 1983). It was recognized that a one day educational course was insufficient to address the problems of repeat offenders. Extending beyond the educational focus, IMPACT was designed to intervene and help repeat offenders determine the nature and extent of their alcohol and/or drug problems and plan strategies for dealing with them. The underlying assumption was that by addressing offenders' substance use problems, the chances of repeat impaired driving would be reduced.

1.1 Study Objectives

The overall purpose of the IMPACT Outcome Study was to examine the outcome results of the IMPACT program. In the context of this overall purpose, several research aims were identified by AADAC management:

1. To determine if IMPACT has any positive effect on impaired driving recidivism.
2. To examine changes in IMPACT participants' pattern of mood altering drug use and level of functioning in various major life areas (e.g., family life, job).

3. To examine participants' post-IMPACT behaviors such as follow through on IMPACT referral recommendations and strategies to avoid impaired driving.
4. To examine the characteristics of participants who do well and who do not do well after the IMPACT program.
5. To determine if these characteristics are useful predictors of impaired driving recidivism and referral compliance.

1.2 The IMPACT Program

Before outlining the methodology of the outcome study, it is helpful to have some understanding of the IMPACT program. A brief discussion follows that outlines the origin, goals and philosophy, target group and referral process, organization and activities of the program.

1.2.1 Origin of IMPACT

AADAC became involved in impaired driving programming in the early 1970's. Initially, there was one educational impaired driving program aimed at all persons convicted of impaired driving called the Alberta Impaired Drivers' Course (AIDC)¹. AADAC became increasingly aware of the large numbers of repeat offenders in the educational program. In response to this concern, AADAC initiated action towards developing a program for repeat offenders.

The IMPACT program gradually evolved into its present form. The process of program development generally occurred in three phases. First, there was a planning and design phase which involved an extensive review of various impaired driving programs throughout Canada and the United States. An impaired driving program called the Weekend Intervention Program (WIP) in Dayton, Ohio, was selected as a framework for initial program development. Based on the review, AADAC prepared a proposal and submitted it to the Alberta Government to request approval for the development and implementation of a repeat impaired

¹ Revisions to AIDC were implemented in May 1987 and the name of the program changed to "Planning Ahead" reflecting the new program emphasis.

driving offender program. At this point, the following four program objectives were outlined for IMPACT:

1. To provide an accurate assessment of the repeat offender's alcohol or drug problem.
2. To have repeat offenders accept that their drinking/drug practices are harmful.
3. To motivate them to actively set out to change their lifestyles by participating in specialized treatment.
4. To ensure those needing treatment are successfully referred to an appropriate program.

In June 1985, the Alberta Government approved AADAC's proposal. Shortly thereafter, the IMPACT program was announced.

The next two phases of program development consisted of actual program implementation. The initial program phase began with program implementation in December 1985 and lasted about two and a half years. During this time the program was gradually phased in throughout Alberta. As well, this phase involved close examination of the quality and process of program delivery. Feedback was obtained from a variety of sources and several formative evaluation research projects were completed by AADAC.

Lastly, there was the mature program phase which began in May 1988 until the present. Based on the feedback from participants, observers, staff, and management, plus the results of the research projects, various program changes were implemented (see Jeune et al., 1988 for formative evaluation results). Generally, the changes helped to integrate the various program components and modify the intervention process to focus more on helping participants develop practical strategic plans to deal with their assessed problem areas.

1.2.2 IMPACT Program Goals and Philosophy

IMPACT is a residential weekend program that aims to achieve the following goals (Jeune et al., 1988):

1. To establish conditions that lead participants to look at the consequences of their mood altering drug use.
2. To differentially assess and document the participant's level and pattern of mood altering drug use and the extent of the effects of that use in major life areas.
3. To identify the future needs of each participant and present appropriate action plans and alternatives to impaired driving.
4. To establish conditions that lead participants to accept and act on action plans and alternatives to impaired driving.
5. To provide an accurate summary report of the assessment and recommendations for the participants and others.
6. To reduce the incidence of mood altering drug related problems, particularly impaired driving, among participants.

IMPACT strives to achieve these goals by following certain principles or models in the design of the program. As briefly described below, the philosophy of the program is based on three models.

First, IMPACT is based on a social learning model of substance abuse. The social learning approach suggests that peoples' beliefs about alcohol and drugs and their ability to respond to the demands of everyday life are important factors in developing addiction problems (Nathan, 1985; R.B. Cormier & Associates, 1988). Part of the IMPACT program involves reflecting assessment information back to participants. This provides participants with the opportunity to gain a better understanding of their beliefs and behavior surrounding alcohol and/or drug use

and how it affects various aspects of their lives (Jeune and Parsons, 1988). To alter peoples' behavior, a lifestyle change should be considered which may involve learning strategies to successfully cope with the demands of everyday life without resorting to substance use (R.B. Cormier & Associates, 1988).

The IMPACT program also incorporates some aspects of an intervention approach. The WIP program developed in 1978 by Dr. Harvey Siegal (1985) uses a modified intervention approach to impaired driving rehabilitation. As explained by Siegal (workshop, 1987), instead of simply presenting information to program participants, intervention refers to engaging participants in an examination of their lives so as to facilitate self-awareness and insight. The WIP program treats the impaired driving conviction as a crisis, and then turns the crisis into something therapeutic. The ultimate goal is behavior change and intervention is the first step in preparing for change.

The IMPACT program uses a type of intervention. That is, IMPACT intervenes by removing participants from their usual environment and having them examine their substance use and how it affects various aspects of their lives (R.B. Cormier & Associates, 1988). Small group discussions are the primary activity used to engage participants. Facilitators in the small groups provide a safe supportive atmosphere in which participants can learn about themselves. Through directed discussions participants share information about themselves and provide feedback to one another. This encourages participants to gain insights about the consequences of their alcohol and/or drug use and helps to motivate them to make changes in their lives.

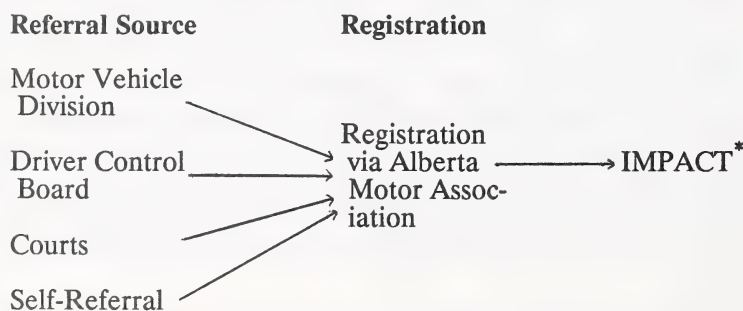
As well, the IMPACT program is based on the health beliefs model. The health belief model proposes that preventive health behavior is influenced by the severity of a particular health condition, a person's desire to reduce susceptibility and by a person's estimation of the benefits and costs of taking some sort of action (Maiman and Becker, 1974). In other words, whether or not a person seeks treatment for an addictions problem will depend on such factors as self-perception of the problem, motivation, knowledge about substance abuse, perception of treatment efficacy and accessibility. IMPACT is designed to increase the chances that participants will take action to deal with their problems by influencing participants' views of substance use, perceptions of risk, and understanding of action

strategies and treatment. The IMPACT assessment is participant-centered. The assessments are done and written primarily for participants, and are to be used by participants as a guideline for follow-up action (R.B. Cormier & Associates, 1988).

1.2.3 Target Group and Referral Process

The target group of IMPACT is repeat impaired driving offenders. Repeat offenders may be referred to the program by different routes (see Figure 1). The most common route is through Motor Vehicle Division (MVD). In Alberta impaired driving convictions (under Canadian Criminal Code section 253(a), 253(b), and 254(5)) are recorded by the MVD of the Alberta Solicitor General. MVD is empowered to suspend operators' licences of persons convicted of impaired driving. Persons convicted of impaired driving, on at least two separate occasions within the last five years, are notified by MVD regarding licence suspension and that attendance at IMPACT is a condition of their licence reinstatement.

Figure 1: Client Flow



* use of "treatment" resources may be recommended for any of the participants

Another referral route is through the Driver Control Board (DCB) which is also under the purview of the Alberta Solicitor General. Persons with multiple licence suspensions and/or violations are reviewed by the board. When DCB requests an alcohol and/or drug assessment, the person may be referred to IMPACT for the assessment.

Less common are self-referrals to IMPACT and referrals directly from the court system. The judiciary are able to use attendance at IMPACT as a condition of discharge or probation.

1.2.4 IMPACT Program Organization and Activities

Based on demand, IMPACT is offered in various centers throughout Alberta. It is delivered by a service contractor who uses trained professionals for on-site delivery. The particular facilities utilized vary depending the number of registered participants and available community resources.

The program begins Friday afternoon and continues until Sunday afternoon. The main activities of the program include: small group discussions, lectures, an individual interview with a facilitator, completion of objective assessment instruments, and films. Although there were some program revisions implemented in May 1988, these activities have been the basic components of the program since its inception. For further program details, readers are referred to the IMPACT Program Manual (1988).

2. METHODOLOGY

The IMPACT Outcome Study involved two major sets of research activities: (1) analysis of records; and (2) telephone interviewing of former IMPACT participants. The research activities are summarized in Table 1 and the study samples are described below.

Analysis of Records

The analysis of records included two samples. First, a random sample of 505 IMPACT participants was drawn from a list of all participants who attended the program sometime between April 1, 1986 and March 31, 1987. Time elapsed between IMPACT attendance and follow-up for the study was between 1.5 to 2.5 years.

Second, a random sample of 300 participants was drawn from the Alberta Impaired Drivers' Course (AIDC). This sample included participants who had attended AIDC during the same time period as the IMPACT sample. Consequently, the time elapsed since program attendance and follow-up for the study was the same as the IMPACT sample, from 1.5 to 2.5 years.

The AIDC sample was included to permit comparison of impaired driving recidivism. AIDC (now called Planning Ahead) is AADAC's one day impaired drivers' program for first offenders. It is designed to help first offenders plan concrete ways to separate drinking from driving. Most of the study participants in the AIDC sample were first offenders. However, due to the criterion used to determine AIDC attendance and certain changes in Alberta's impaired driving administrative procedures the year before the study, a small percentage of the AIDC sample were actually repeat impaired driving offenders. It is important to keep this in mind when comparing impaired driving recidivism findings of the IMPACT and AIDC samples.

The Motor Vehicle Division of the Alberta Solicitor General provided driving record information on participants from both IMPACT and AIDC samples. As well, for just the IMPACT sample, AADAC records were examined to provide

Table 1: IMPACT Outcome Study

Sample	Procedure	Information Provided
Analysis of Records * 505 IMPACT participants (1986/87)	* examined driving records and AADAC records	* impaired driving recidivism * demographic * IMPACT assessment information * AADAC & Funded Agency admissions post-IMPACT
* 300 AIDC participants (1986/87)	* examined driving records	* impaired driving recidivism * demographic
Telephone Interviews * 167 IMPACT participants (1986/87) (sub-sample of the large IMPACT sample of 505)	* conducted telephone interviews * examined IMPACT records	* self-report follow-up information on: - substance use - impaired driving - assessment information - post-IMPACT action taken - reactions to IMPACT

some information on the IMPACT assessment and admissions to AADAC and Funded Agency services post-IMPACT.

Telephone Interviews

The telephone interviews involved a sub-sample of participants of the larger IMPACT sample. Between November 1988 and March 1989, attempts were made to contact 350 participants of the larger sample of 505. In total, 47.7% (167) of the 350 participants completed telephone interviews. Just over half (183) of the participants were not interviewed for a variety of reasons:

- * 156 (44.6%) had moved or were out of town.
- * 8 (2.3%) screeners refused for participants.
- * 16 (4.6%) refused.
- * 3 (0.9%) were unable to participate due to illness or a language problem.

This was considered a reasonable response rate given that participants had not had contact with IMPACT for a relatively lengthy period of time.

The telephone interview information in conjunction with IMPACT file information provided self-report information on impaired driving, mood altering drug use, level of functioning in various areas of their lives, and changes made since IMPACT attendance. A copy of the telephone interview questionnaire is in Appendix A.

Age and Gender of Study Participants

Tables in Appendix B outline age and gender for the three samples in comparison with the larger populations of AIDC and IMPACT participants attending the program during the 1986/87 fiscal year. Some differences are noted in terms of age and gender:

IMPACT Samples

- * IMPACT participants who were interviewed were slightly older than participants in the large IMPACT sample and the larger population of program participants in 1986/87.
- * A smaller percentage (2.4%) of those interviewed were women, compared to the larger IMPACT sample (4.8%) and population of program participants (4.8%) in 1986/87.

AIDC Sample

- * Participants of the AIDC sample were somewhat older than the larger population of AIDC participants in 1986/87.

These differences should be considered when generalizing the findings to all IMPACT participants.

IMPACT Program Changes

The results of the study are based on the IMPACT program in 1986/87 during the initial implementation phase of program development. Since that time various program changes have been incorporated into the program. Although the essential program components still remain, participants attending the program during this phase experienced a somewhat different program. From participants' viewpoint, the major differences in the program for the two phases are as follows:

Initial Program Phase

- * small group sessions consisted of up to 12 participants and 2 facilitators.

Mature Program Phase

- * small group sessions consisted of up to 6 participants and 1 facilitator fostering more intimate discussion.

* less emphasis on relapse prevention.

* more emphasis on relapse prevention (e.g. developing personal strategies for dealing with high risk situations).

* assessment reports more attentive to third parties (e.g. treatment agencies).

* assessment reports more comprehensive and "participant-focused".

It is important to consider these differences when generalizing the study findings to the population attending the current IMPACT program and when exploring the implications for further program development.

Outcome Measures

A common problem in impaired driving evaluations, is the use of impaired driving recidivism as the sole outcome measure. Impaired driving recidivism usually refers to legally detected impaired driving (i.e., impaired driving convictions) which is a limited indicator of impaired driving. For example, the rare occurrence of detected impaired driving means that fairly long follow-up periods are required to observe small or moderate differences in recidivism rates (Foon, 1988). As well, impaired driving recidivism is influenced by other factors such as policing activities (Mann et al., 1983; Foon, 1988).

This study addressed some of these concerns in two ways. First, a variety of outcome measures were used to examine alcohol and/or drug use, functioning in different areas of participants' lives, and remedial action taken after IMPACT. This provided a more comprehensive overview of how participants were doing some time after completing the program. Second, both self-report information and official records were examined which served two purposes: (1) official records helped to validate the self-report information; and (2) the self-report information helped address gaps of information in the official record data. As presented later in the report, a high level of agreement was found between official record and self-report findings. This suggested that participants provided accurate information during the telephone interviews.

3. FINDINGS

The study findings are presented in two sections. The first section reports the major findings from the analysis of records and the second section outlines the major findings of the telephone interviews.

3.1 Major Findings of the Analysis of Records

This section presents the major findings on various driving record measures for IMPACT and AIDC study participants. As well, findings are presented on admissions to AADAC and Funded Agencies by IMPACT participants during the follow-up period. These findings are based on analysis of driving records of two samples: (1) the large IMPACT sample (n=505); and the AIDC sample (n=300). AADAC records were also examined, but only for the IMPACT sample (n=505).

3.1.1 Driving Record Findings

AIDC and IMPACT participants were compared on a number of driving record variables both pre and post-program attendance. As shown in Table 2, more statistically significant differences were observed between these two groups before program attendance than afterwards:

- * Pre-program, IMPACT participants had a somewhat greater number of days in jail, Driver Control Board (DCB) suspensions, other driving convictions, and impaired driving convictions than AIDC participants.

The differences on these variables were expected. IMPACT participants would have received stiffer penalties (e.g. days in jail) pre-program than AIDC participants, because they have had at least two impaired driving convictions in the past five years. As shown in Table 2, IMPACT participants had an average of two impaired driving convictions within five years pre-program. In contrast, most of the AIDC participants only had one impaired driving conviction. As explained earlier, a small proportion of AIDC participants in the study were actually repeat offenders which was reflected in their mean number of 1.2 impaired driving convictions.

Although there were other statistically significant variables pre-program, some of the differences were so small as to be of limited practical significance. For example, the average difference in the number of DCB suspensions between IMPACT and AIDC participants pre-program was only .19. This means both samples of participants had less than one DCB suspension prior program attendance, suggesting a less substantial difference between the two groups on this factor.

Table 2: Driving Record Information on IMPACT and AIDC Participants

Variable	IMPACT	AIDC
	Mean	Mean
* days in jail pre-program	6.20	1.10
days in jail post-program	6.10	3.30
* DCB suspensions pre-program	.28	.09
DCB suspensions post-program	.03	.03
* other driving convictions pre-program	3.96	3.29
other driving convictions post-prog	.60	.62
* DWI ^t convictions 5 yrs pre-program	2.00	1.20
DWI convictions post-program	.15	.14
* legal driving time post-program(years)	1.25	1.71

* Statistically significant difference found between IMPACT and AIDC at the .05 level.

^t DWI refers to driving while impaired.

After program attendance, there were fewer differences between IMPACT and AIDC participants.

- * Post-program, both IMPACT and AIDC participants had a decrease in the number of DCB suspensions, other driving convictions, and impaired driving convictions.

They differed on only two variables post-program.

- * On average, AIDC participants had about six months more legal driving time in the follow-up period than IMPACT participants reflecting the shorter lengths of licence suspensions for first offenders.
- * On average, IMPACT participants had almost the same number of days in jail post-program whereas AIDC participants had an increase in the average number of days in jail.

Days in jail includes jail time for other driving convictions as well as impaired driving convictions. The amount of jail time is influenced by factors such as past driving record and the type of conviction. For instance, impaired driving offenders usually do not receive jail time until their second offence and with subsequent offences they may receive longer jail time. The findings in Table 2 suggest that fewer IMPACT and AIDC participants were convicted post-program, but for those that did reoffend they received more days in jail.

Overall, these findings suggest some improvement in terms of impaired driving convictions and other driving convictions for both IMPACT and AIDC participants during the follow-up period.

3.1.1.1 Impaired Driving Recidivism

Driving convictions post-program are presented in more detail in Tables 3 and 4. Table 3 indicates that the majority of study participants in both AIDC (88.9%) and IMPACT (88.5%) were not convicted of impaired driving within 1.5 to 2.5 years after program attendance. The recidivism rate for both programs is almost the same:

- * For every 100 AIDC participants, 11 participants were reconvicted for impaired driving.
- * For every 100 IMPACT participants, 12 participants were reconvicted for impaired driving.

Table 3: Number of Impaired Driving Convictions Post-program

Number of Convictions	IMPACT (n = 505)	AIDC (n = 300)
0 convictions	88.5%	88.9%
1 conviction	9.2%	9.1%
2 convictions	1.5%	1.7%
3 convictions	.8%	.3%
4 convictions	.0%	.0%
5 convictions	.1%	.0%
Total*	100.1%	100.0%

* Total percentages may not equal 100% due to rounding.

Table 4: Number of Other Driving Convictions Post-program

Number of Convictions	IMPACT (n = 505)	AIDC (n = 300)
0 convictions	63.0%	64.4%
1 conviction	22.4%	21.5%
2 convictions	10.1%	7.0%
3 convictions	2.8%	3.7%
4 convictions	.9%	2.0%
5+ convictions	.7%	1.3%
Total*	99.9%	99.9%

* Total percentages may not equal 100% due to rounding.

Table 4 presents the number of other driving convictions post-program. Other driving offences included a variety of driving offences that were not specifically related to alcohol or drug use such as speeding, careless driving, and failure to report an accident.

- * A similar proportion (IMPACT 36.9%; AIDC 35.5%) of study participants were convicted of other driving offences within 1.5 to 2.5 years after program attendance.
- * A slightly greater percentage of AIDC participants (7.0%) had 3 or more other driving convictions post-program than IMPACT participants (4.4%). In part, this may relate to the different amounts of legal driving time for the two groups. On average, AIDC participants had more legal driving time in the follow-up period; therefore, they may have had more time to incur additional other driving convictions.

Given the more serious nature of IMPACT participants' problems, a greater level of impaired driving recidivism was expected for IMPACT participants when the two groups were compared. Instead, impaired driving recidivism was similar for both of the groups; and, a similar and substantial proportion of participants from each program had received other driving convictions.

So far the findings have provided a general indication of the level of recidivism. However, a variety of other factors have not been taken into account such as how soon after program attendance participants reoffended², differing amounts of legal driving time³, and number of other driving convictions. Further analysis was done to examine each of these factors in relation to impaired driving recidivism. The major findings were as follows:

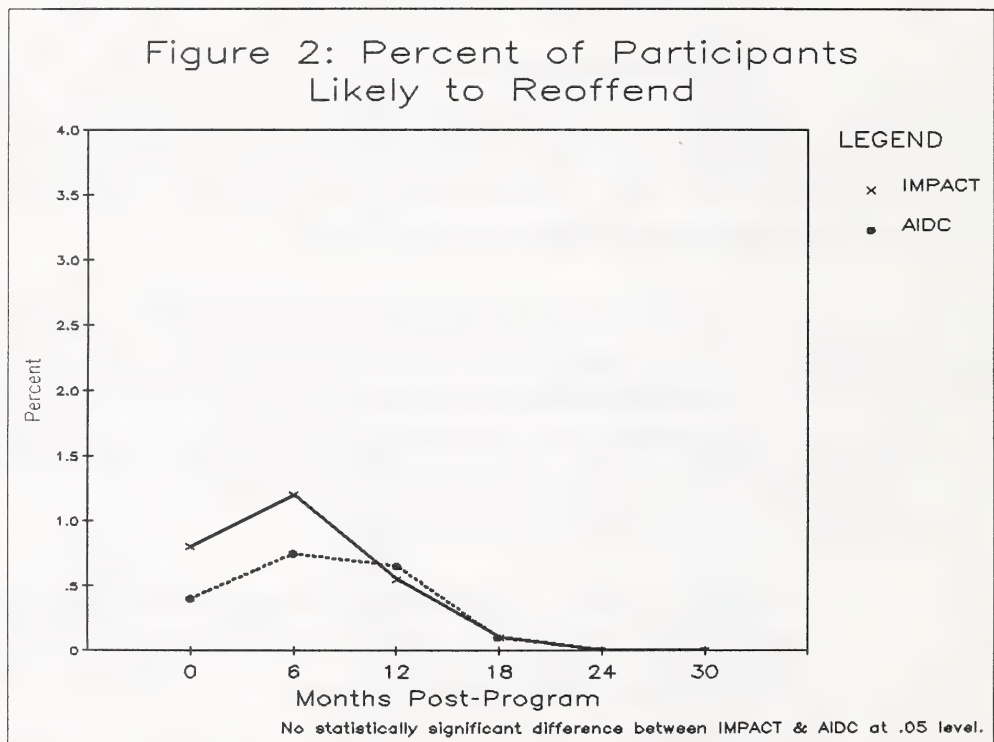
- * As shown in Figure 2, when impaired driving recidivism does occur, it is more likely to occur within the first year after program attendance for both AIDC and IMPACT participants.
- * IMPACT participants with less legal driving time (< 1.5 years) had a slightly lower chance of impaired driving recidivism post-program than AIDC participants with less legal driving time (< 1.5 years) (Figures B.2 through B.5 in Appendix B).

² Due to court processing time, there is often a time lag between offence date and conviction date. For study purposes, offence date as opposed to conviction date was used in all calculations.

³ Legal driving time was calculated by subtracting the number of days of operators' licence suspension from total number of days in the follow-up period. For some analysis, total number of days of legal driving time was categorized into: (1) < 1.5 years; and (2) 1.5 to 2.5 years legal driving time.

- * For IMPACT and AIDC participants, there were no significant differences in impaired driving recidivism when taking into account the number of other driving convictions (Figures B.6 through B.9 in Appendix B).

These findings further suggest that impaired driving recidivism is similar for IMPACT and AIDC participants. For both groups, impaired driving recidivism is more common within the first year after program attendance.



3.1.1.2 Driving Convictions by IMPACT Assessment Ratings

Focussing on just IMPACT participants, driving convictions post-program were examined by facilitator assessment ratings. In the IMPACT program facilitators involve participants in an assessment of their alcohol and/or drug use. During the 1986/87 fiscal year, participants were assessed as either social users, harmfully-involved users, or dependent users of alcohol and/or drugs. Figures 3 and 4, illustrate the percentage of participants receiving impaired driving convictions and other driving convictions by assessment ratings.

- * As shown in Figure 3, a larger proportion of IMPACT participants assessed as dependent were reconvicted for impaired driving than those assessed as social or harmfully-involved alcohol and/or drug users.
- * As shown in Figure 4, a similar proportion (34% to 39%) of participants in all three assessment categories received convictions for other driving offences in the follow-up period.

In terms of impaired driving, these findings suggest that IMPACT participants with more severe alcohol and/or drug use problems are more likely to reoffend after the program. However, other driving convictions do not appear to be related to the severity of alcohol and/or drug use problems.

3.1.2 AADAC Record Findings

For IMPACT participants in the large sample (n=505), AADAC records were also examined to determine if participants obtained any type of AADAC services after IMPACT attendance.

Based on the participants' assessments, IMPACT facilitators recommended appropriate referrals to participants. Referral recommendations included a variety of community resources and services such as the following:

- * Alcoholics Anonymous (AA)
- * Social Services

Figure 3: Impaired Driving Convictions Post-IMPACT by Facilitator Assessment Rating

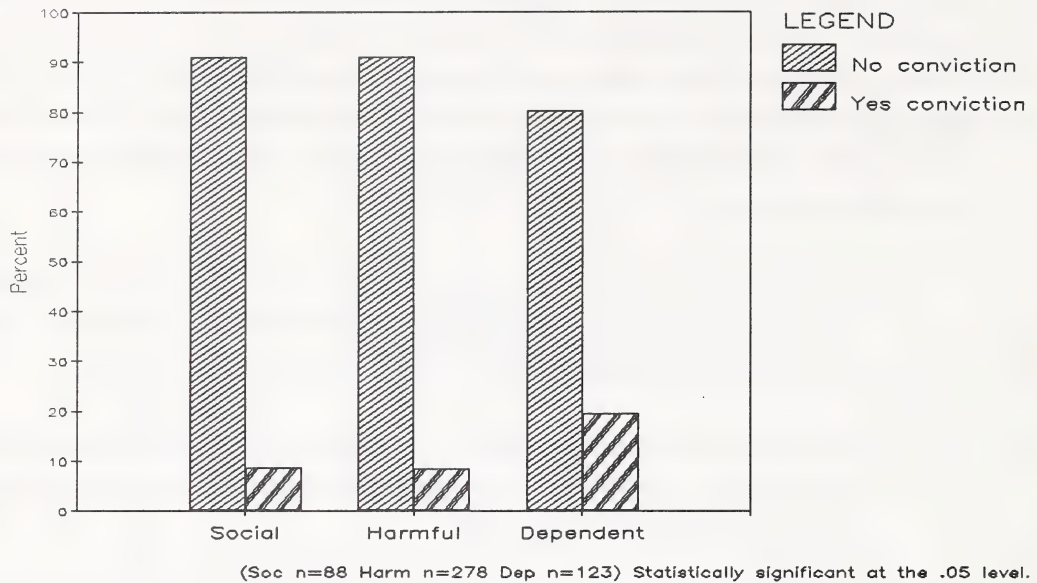
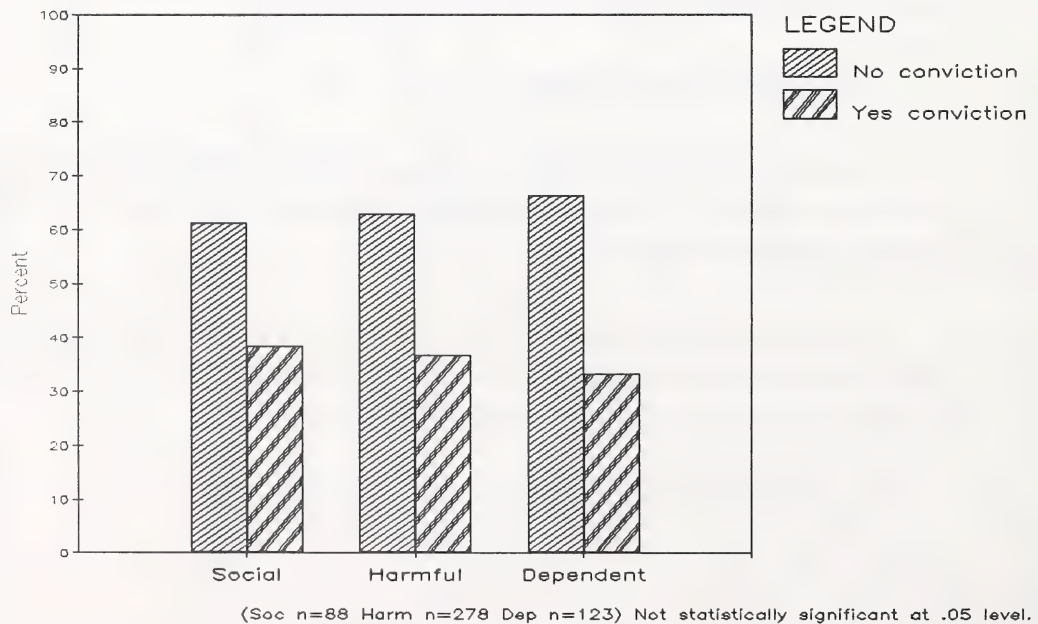


Figure 4: Other Driving Convictions Post-IMPACT by Facilitator Assessment Rating



- * Narcotics Anonymous (NA)
- * AADAC and Funded Agencies
- * Driver Education
- * Counselling Services
- * Medical Services
- * Mental Health Services
- * Native Services
- * Other Services

Most (77.6%) of the study participants received at least one referral recommendation from IMPACT and 31% of the participants received more than one referral recommendation (e.g. AA and AADAC).

AADAC records were examined to see whether the participants receiving referral recommendations to AADAC were admitted to treatment. Unfortunately, this study only had access to AADAC records; therefore, it was impossible to monitor participants' contacts with other non-AADAC helping agencies. In other words, the study could not determine contact with treatment services such as general medical services or with self-help groups such as AA or NA. As well, it was not possible to follow participants who had contacted AADAC and Funded Agencies, but were not admitted. For example, participants contacting AADAC for information or attending the AADAC lecture series are not recorded as admissions in AADAC records. Keeping this in mind, Table 5 presents the number of IMPACT participants admitted to AADAC and Funded Agencies for treatment during the follow-up period by assessment categories of alcohol and/or drug use.

Table 5: Percentage of IMPACT Participants Admitted to AADAC and Funded Agencies by Facilitator Assessment Rating

Assessment Rating	Referral Recommendation to AADAC	Admissions* to AADAC and Funded Agencies
Social use (n=88)	37.6%	6.3%
Harmfully-Involved use (n=278)	76.2%	16.0%
Dependent use (n=123)	72.7%	27.5%

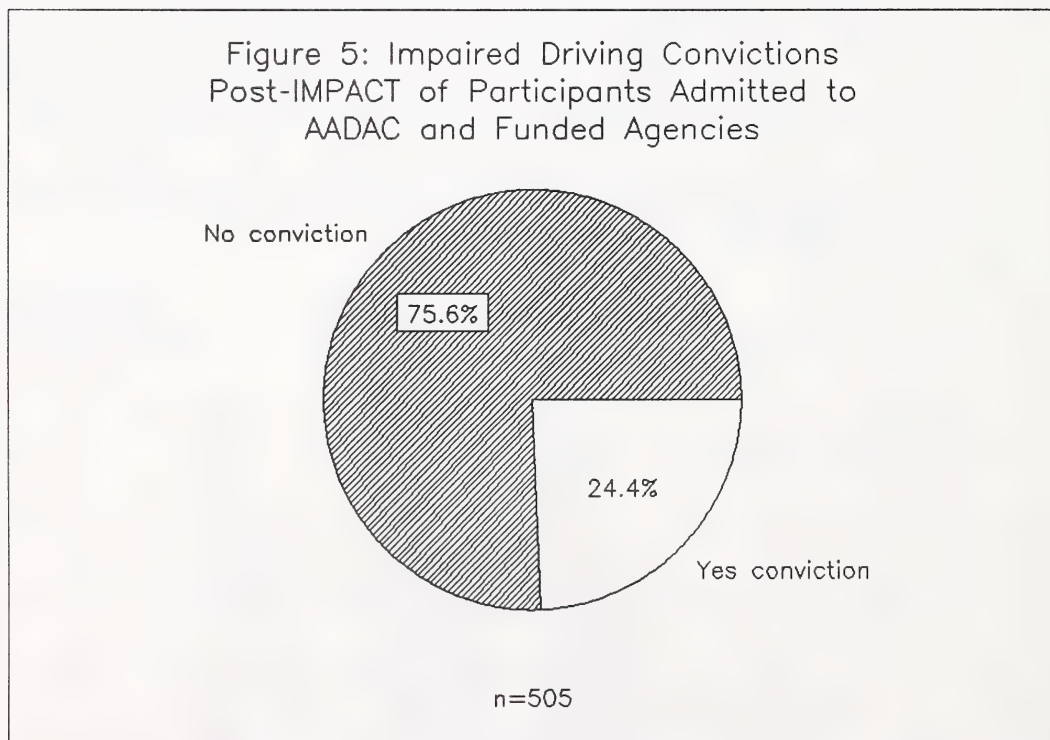
* Admissions do not include participants requesting information or attending AADAC's lecture series.

- * As expected, a larger percentage of IMPACT participants assessed as harmfully-involved and dependent users received a referral recommendation to AADAC than those assessed as social users (Table 5).

- * A larger proportion of participants assessed as dependent were admitted to AADAC and Funded Agencies than those assessed as social or harmfully-involved users (Table 5).

Looking specifically at the IMPACT participants who were admitted to AADAC and Funded Agencies, some further findings were as follows:

- * Most (84.9%) of the admissions were to outpatient facilities and about a third (36.1%) were to inpatient facilities.
- * Almost one-quarter (24.4%) of those admitted to AADAC and Funded Agencies were reconvicted of impaired driving during the follow-up period after IMPACT. This is approximately two times greater than the 11.6% recidivism rate of the overall sample of IMPACT participants (Figure 5).



From these findings, it appears that participants admitted to AADAC and Funded Agencies were the participants with more severe alcohol and/or drug use problems.

3.1.3 Summary of Analysis of Records Findings

In summary, the analysis of driving records and AADAC records suggest the following:

- * In general, for both IMPACT and AIDC participants, there is a reduction in impaired driving recidivism during the follow-up period since program attendance.
- * The recidivism rate for impaired driving and other convictions is similar for both IMPACT and AIDC participants.
- * For both programs, impaired driving recidivism is more likely to occur within the first year after program attendance.
- * For IMPACT participants, a greater proportion of those assessed with more severe alcohol and/or drug problems reoffend for impaired driving and are admitted to AADAC and Funded Agencies.

3.2 Major Findings of the Telephone Interviews

This section presents the major findings from the 167 telephone interviews with IMPACT participants. To permit some comparisons, the information from the interviews was combined with IMPACT file information gathered during program attendance. Outlined below, the findings are organized into three general sections including information on impaired driving, changes made by participants since IMPACT, and characteristics of participants benefitting from IMPACT.

3.2.1 Impaired Driving

Participants were asked several questions concerning their impaired driving behavior. Since attending IMPACT, slightly more than a third (38.3%) reported

that they had driven after having two or more drinks in the previous hour. The majority (84.4%) had done so less than twice during the month prior to the interview.

Almost a quarter (23.4%) of the participants stated that someone had tried to stop them from driving impaired since attending IMPACT. In most cases, it was either the participants' spouse or a friend who had tried to stop them. Spouses were always successful and friends were usually (81%) successful. In only a few cases were participants' stopped by a bartender (2.4%) or stranger (1.2%) from driving impaired.

Participants were also asked about legal sanctions they received for impaired driving since attending IMPACT.

- * 12% of participants interviewed indicated that they had been stopped by police because they were suspected of impaired driving. Most (94.7%) of these participants were charged with impaired driving.
- * 10.1% of participants interviewed reported being convicted for impaired driving.

This is consistent with the driving record findings presented above which indicated that 11.6% of the large IMPACT sample had received impaired driving convictions since IMPACT.

3.2.1.1 Impaired Driving Knowledge and Attitudes

Participants also responded to a few questions reflecting knowledge and attitudes related to impaired driving. Figure 6 illustrates participants' estimates of the number of drinks it takes to feel impaired versus the number of drinks before they are over the legal limit of .08% blood alcohol concentration (BAC). Just over two-thirds (67.6%) reported four or less drinks in two hours to feel impaired. An even higher percentage (80.9%) felt that four or less drinks would put them over the legal BAC limit suggesting that participants are aware of the distinction between being legally impaired versus feeling impaired. Also shown in Figure 6, slightly less than a third (32.4%) of participants indicated that it takes five or more drinks over

two hours to feel impaired. This may suggest that a substantial proportion of participants have a fair degree of tolerance to alcohol. Especially given that about a third (35.9%) of the participants were also in agreement with the statement that it usually takes a lot of drinks to feel impaired (Table 6).

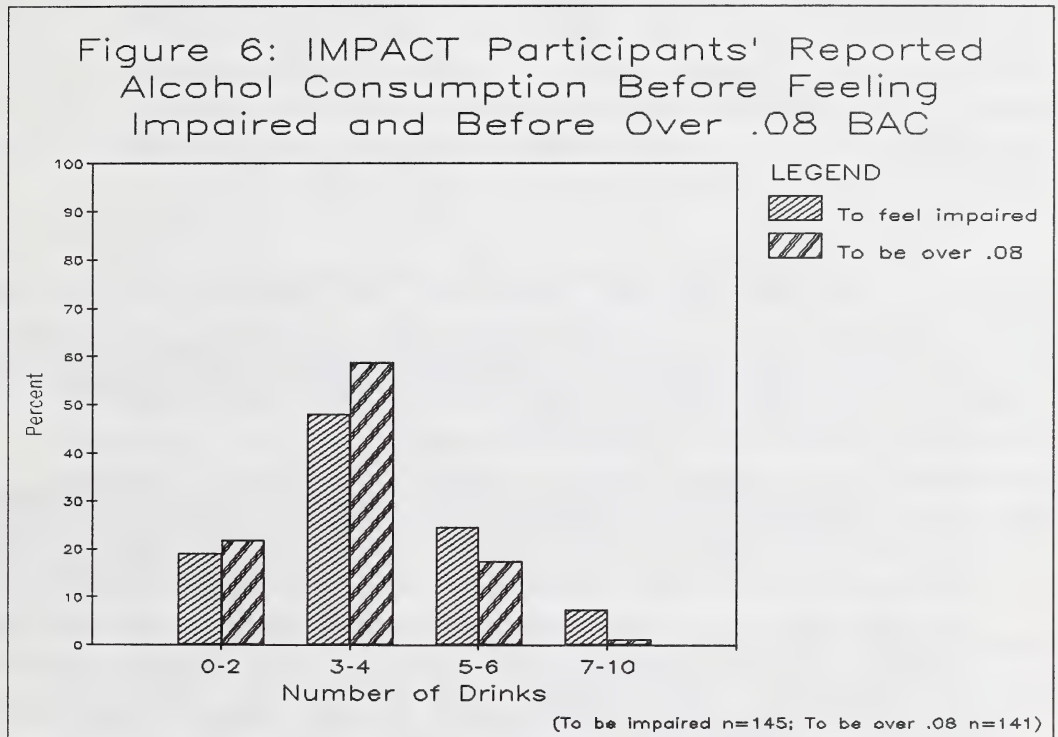


Table 6: Knowledge & Attitudes Related to Impaired Driving

Statement	Agreement	Neutral	Disagreement	Unknown
It usually takes a lot of drinks to make me feel impaired.	35.9%	3.6%	48.5%	12.0%
Some people drive better after a few drinks.	4.2%	0.0%	89.8%	6.0%
My friends & family would disapprove of me for impaired driving.	86.2%	1.8%	6.0%	6.0%

Participants were also asked about their agreement with two other statements (Table 6). The majority (89.9%) disagreed that some people drive better after a few drinks and most (86.2%) agreed that their friends and family would disapprove of them for driving impaired.

Even though most participants felt their friends and family would disapprove of them driving impaired, almost two-thirds (65%) of the participants reported that at least one of their friends or relatives had driven after having too much to drink during the time since the participant had attended IMPACT. In addition, a third (32.9%) reported that at least one of their friends or relatives had been convicted of impaired driving. These findings suggest that there may be a gap between participants' knowledge and attitudes and actual behavior occurring in their social environment. It seems that they are aware that impaired driving is no longer considered appropriate behavior, yet impaired driving does seem to be fairly common behavior among their friends and relatives.

3.2.1.2 Summary

- * Generally, IMPACT participants' attitudes towards impaired driving are consistent with the view that it is not okay to drive while impaired.

- * Despite participants' attitudes, just over a third of participants have driven after drinking since attending IMPACT, although they were not necessarily legally impaired at the time. Plus, a considerable portion of participants knew someone who has driven after having too much to drink. This may suggest that participants know that impaired driving is not appropriate, but to some extent still engage in this type of behavior.
- * The number of participants reporting that they received impaired driving convictions since IMPACT is fairly consistent with the driving record information. According to driving records, 11.6% of IMPACT participants were reconvicted of impaired driving during the follow-up period. This is similar to the interview finding that 10.1% of participants reported being reconvicted for impaired driving post-IMPACT.

3.2.2 Participants' Changes Since Attending IMPACT

IMPACT is based on the premise that a portion of repeat impaired driving offenders will have an alcohol and/or drug use problem. Further, by addressing the alcohol and/or drug use problem, the likelihood of repeat impaired driving will be reduced. This means that in addition to impaired driving recidivism, another aspect of program outcome results concerns changes participants have made in such areas as substance use.

During the interview participants were questioned in three different areas: (1) substance use; (2) functioning in major life areas; and (3) action taken after attending IMPACT. The major findings in each of these areas are outlined below.

3.2.2.1 Substance Use

IMPACT participants' answers to various interview questions suggest that in general participants' substance use has decreased during the follow-up period after IMPACT attendance.

Self-reported use of various substances are shown in Table 7. Substance use referred to any type of alcohol and/or drug use (e.g. very occasional use to daily use) during the follow-up period after IMPACT attendance.

- * There was a slight decrease in the percentage of participants reporting that they had used alcohol, marijuana, hallucinogens, and opiates during the time since IMPACT. Marijuana had the largest decrease in use.
- * Less than 5% of participants reported use of tranquilizers, or barbiturates, or amphetamines in the time before and after IMPACT attendance.
- * The only category of substance use to increase from pre to post-IMPACT was the "other" category. During the follow-up period in the telephone interview, cocaine was the substance mentioned most often in the "other" category. It was not possible to determine the exact substances included in the "other" category for the pre-IMPACT period.

Table 7: Reported Substance Use* During the Year Prior IMPACT and Time Since IMPACT

Type of Substance	Some Time During Year Prior IMPACT (n = 165)	Some Time During Follow-up Period (n = 151)
Alcohol	100.0%	98.0%
Marijuana/hash	26.7%	18.5%
Tranquilizers	2.4%	2.6%
Barbiturates	1.8%	2.0%
Amphetamines	1.8%	2.0%
Hallucinogens	3.6%	2.6%
Opiates	2.4%	.7%
Other	3.6%	7.3%

* Refers to some use of any of the substances listed during the follow-up period. It does not imply continuous use; there may have been some periods of abstinence.

In addition to the type of substances used, participants were also asked about their amount and pattern of substance use since attending IMPACT.

- * As shown in Figure 7, most participants (82.9%) said they had been using less since attending IMPACT.
- * In terms of pattern of substance use post-IMPACT, the largest proportion (57.4%) of participants indicated that they used substances mainly on

weekends (Figure 8). In contrast, during the year prior IMPACT attendance, the largest proportion (48%) of participants indicated daily use.

These findings suggest that some participants have decreased the frequency of their use as well as the overall amount consumed during the time since IMPACT.

This is consistent with the change in participants' CAGE scores. The CAGE is a simple measure consisting of four questions concerning drinking:

- C - cutting down drinking
- A - annoyed by criticism of drinking
- G - guilt regarding drinking
- E - eye-opener

It has been used on clinical samples to distinguish alcoholics from non-alcoholics. A positive response to two or more questions (1 point for each positive response) is the criterion used to indicate a drinking problem (Chaley, 1986).

CAGE⁴ scores from the interview were compared with participants' scores when they attended IMPACT. At both points in time, scores ranged from 0 to 4. However, on average interview scores (mean=1.7) were lower than IMPACT scores (mean=2.6) suggesting a reduction in drinking problems.

A final indicator of decreased substance use was the number of participants who have had periods of abstinence since IMPACT.

- * Just under half (45.5%) of the participants interviewed, reported some periods of abstinence during the follow-up period.

On average participants had two periods of abstinence that ranged in duration from about two weeks to several years. The average length of abstinence was approximately one year.

⁴ The CAGE is no longer used in the IMPACT program.

Figure 7: Self-Reported Alcohol and/or Drugs Use Post-IMPACT

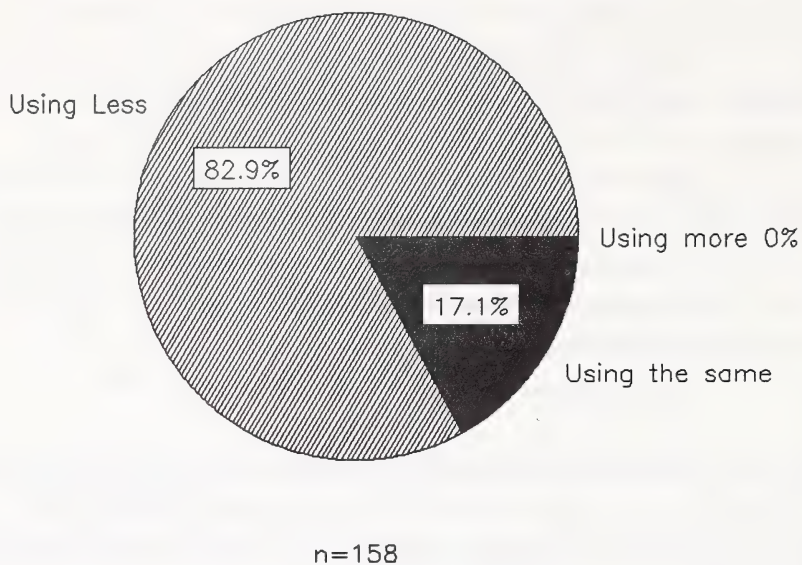
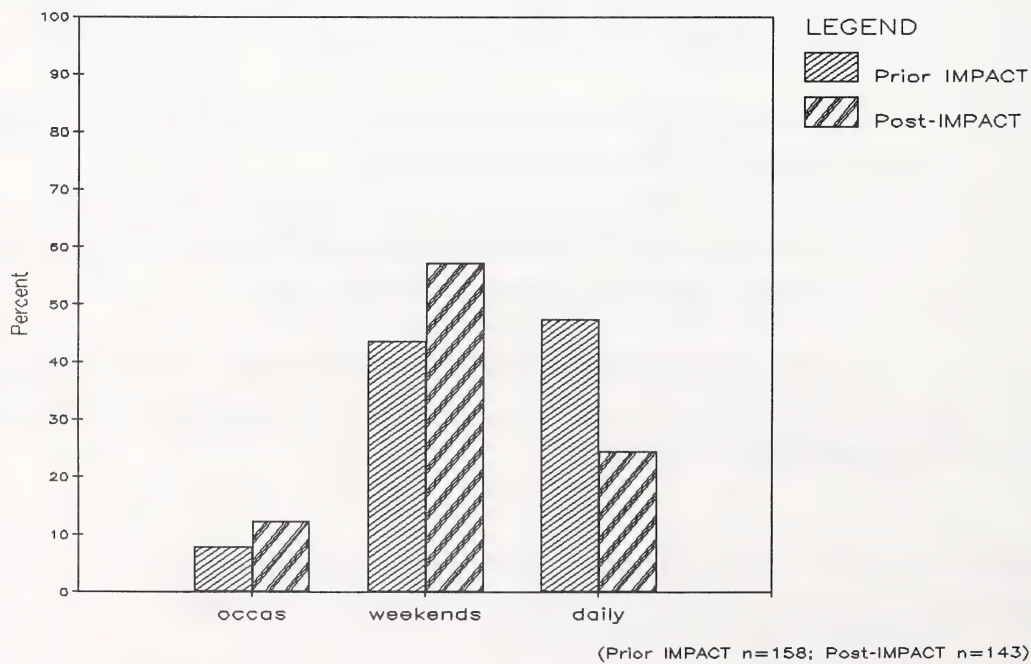


Figure 8: Pattern of Substance Use



3.2.2.2 Major Life Areas

Substance use can effect various areas of peoples' lives. Consequently, participants were also questioned about how they have been functioning in different life areas.

Overall, participants interviewed indicated some improvement in functioning in most major life areas since attending IMPACT. Table 8 shows that there were significant improvements in the life areas of physical health, job and/or school, social and leisure, and family life.

Table 8: Percentage of Participants Reporting Minimal or No Problems* in Four Major Life Areas

Major Life Area	At Time of IMPACT	At Time of Interview
Physical health	36.2%	73.6%
Job/school	78.8%	93.4%
Social/leisure	30.2%	57.3%
Family	73.6%	88.8%

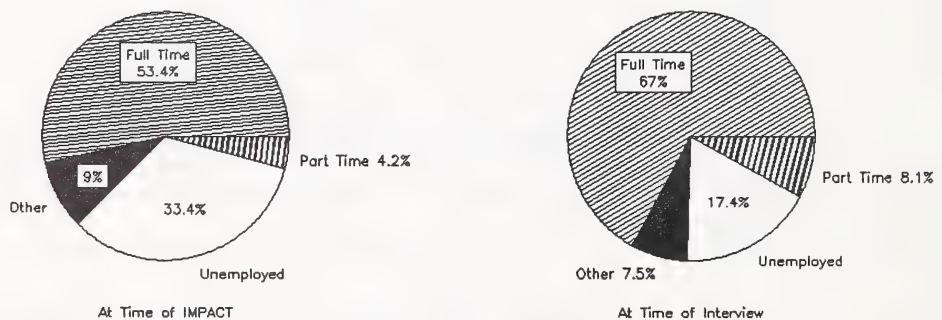
* In the interview participants were asked about four possible problems in each of these four areas (0=no, 1=yes). These scores were summed to give an overall score in each area (range=0 - 4) and were compared to ratings received at IMPACT. A score of 0 or 1 was considered minimal or no problems. There were statistically significant differences between scores at time of IMPACT and at interview (at .05 level).

In the area of job and/or school, there was a substantial improvement in employment status. As shown in Figure 9, two-thirds (67.1%) of the participants reported full-time employment at the time of the telephone interview. In contrast, only about half (53.3%) were employed full-time at the time they attended IMPACT.

Table 9 summarizes participants' responses during the interview for all seven major life areas. With the exception of the financial and legal areas, most responses referred to positive changes in the major life areas. In the financial and legal areas little or no change was more common. In part, this may be accounted for by participants' interpretation of the question. Some participants had difficulty with

the idea of change in the legal area of their lives. Several comments suggested that some participants felt that not receiving another impaired driving conviction after IMPACT was the same as no change in the legal area. If the majority of participants had this interpretation, then it would be expected that most participants would report no change especially since most participants did not reoffend during the follow-up period. Another factor influencing participants' responses may have been that many of the financial and legal issues (e.g. days in jail) faced by participants were already dealt with by the time some participants attended IMPACT; thus, they did not perceive any changes in the time after attending the program.

Figure 9: Employment Status of IMPACT Participants



(At IMPACT n=165; At interview n=161)

In terms of positive changes, participants talked most about changes in the social/leisure area. In particular,

- * Almost half (43.8%) of the participants' commented that since IMPACT they were more involved in social activities that did not involve alcohol and/or drugs and that they were enjoying it.
- * Only a few (15.1%) negative comments were made regarding the social/leisure area such as not having a social life since the participant stopped drinking, and feeling social pressure to drink.

The comments for each of the other areas are summarized in Appendix B (Tables B.5 to B.11).

Table 9: Participants' Reported Changes in Major Life Areas

Major Life Area	Percent of Total Number of Responses		
	No or Little Change	Positive Change	Negative Change
Physical health	36.8%	56.0%	7.2%
Job/school	36.2%	59.8%	4.0%
Social/leisure	21.4%	69.0%	9.7%
Family	35.0%	59.6%	5.4%
Emotional health	33.7%	63.3%	3.0%
Finances	51.4%	47.2%	1.4%
Legal	64.2%	29.9%	5.8%

3.2.2.3 Action Taken Post-IMPACT

During IMPACT, participants identify and discuss situations that are high risk for them to use alcohol and/or drugs which in turn may result in impaired driving. Further, they also talk about how they are going to deal with such situations and develop plans of action. A plan of action may include steps taken personally to deal with high risk situations; as well, it may include a referral recommendation to

available treatment services in the community. With this in mind, participants interviewed were asked questions about any action they may have taken since IMPACT to deal with their substance use and/or impaired driving.

As shown in Table 10, only 8.4% of participants stated that they had not taken any action after IMPACT. About a third (34.1%) reported that they had taken action by doing it on their own. In other words, some participants said that they just decided to make a change (e.g. not to drive impaired or not to drink), and then did it. Those indicating some type of action included such things as receiving support from others (32.3%), reducing their alcohol and/or drug use (32.3%), going for treatment (29.3%), and using strategies to avoid impaired driving (26.4%).

Table 10: Types of Action Taken Since Attending IMPACT

Type of Action Taken	Percent of Participants Interviewed (n = 167)
No deliberate action taken to change	8.4%
Did it on own	34.1%
Received support from family & friends	32.3%
Reduced alcohol/drug use	32.3%
Contacted treatment services	29.3%
Strategies to avoid impaired driving	26.4%
Made lifestyle change	12.0%
Received religious support	7.9%
Helped others (e.g. friends)	4.8%
Kept busy (e.g. working)	2.4%
Continued changes made prior IMPACT	2.4%

Strategies used to avoid impaired driving and reduce substance use are outlined in Tables 11 and 12.

- * The two most common strategies for avoiding impaired driving were to take a taxi (86.9%) and ask someone else to drive (81.0%).
- * The two most common strategies to reduce substance use were to go to the bar less often (82.2%) and limit the amount of alcohol and/or drugs consumed (76.0%).

Participants mentioned different ways to limit drinks such as going home after a certain number of drinks or spacing fewer drinks over the evening. Over half of the participants also indicated that they avoided situations where they felt tempted or pressured to drink by doing such things as skipping some social events (59.6%) and/or avoiding friends who are heavy substance users (56.2%).

Table 11: Strategies Used to Avoid Impaired Driving

Strategy	Percent of Participants Interviewed (n = 137)
Public transport (e.g. bus, taxi)	86.9%
Asked someone else to drive	81.0%
Stayed overnight	60.6%
Limited # drinks when driving	45.3%
Breathalyser before driving	2.2%
Other (e.g. leave car at home)	15.3%

Table 12: Strategies Used to Reduce Substance Use

Strategy	Percent of Participants Interviewed (n = 146)
Went to bars less	82.2%
Limited amount or no substance use	76.0%
Drank non-alcoholic beverages	64.4%
Skipped social events	59.6%
Avoided friends who use	56.2%
Switched alcoholic beverages (e.g. beer to wine)	24.7%
Other	19.9%

Follow Through on IMPACT Referral Recommendations

Just over two-thirds (70.6%) of participants interviewed, reported receiving one or more referral recommendations at IMPACT. As shown in Figure 10, slightly under half (44.9%) of participants interviewed, reported that they contacted at least

one of the suggested referral recommendations. Among those contacting a referral recommendation, most (67%) stated that they contacted AADAC services and almost half (46.7%) contacted Alcoholics Anonymous (AA). The time elapsed between program attendance and contacting the first referral varied from a couple of days to 1.6 years after IMPACT. Sixty percent contacted the referral within about two weeks of attending IMPACT.

The number of participants reporting follow through on an IMPACT referral recommendation to AADAC were examined further to see if they were actually recorded as admissions in AADAC records. In total 50 participants reported contacting AADAC and 40 of these participants were found in AADAC records. It is possible that there was some error in recall by the 10 participants not recorded as admissions. As well, some of these participants may have presented at AADAC just for information and would not have been admitted. Regardless of the reason, these findings suggest that the majority (80%) of participants interviewed gave information about treatment services that was consistent with AADAC records.

Figure 10 also shows that about one-quarter of the participants interviewed did not follow through on an IMPACT referral recommendation. The various reasons given for not doing so are summarized in Table 13. About half (53.5%) of those not following a referral recommendation felt that they did not need treatment. As well, just over a third (37.2%) reported that they made changes on their own (such as reducing their drinking) and some (30.2%) had difficulties contacting or getting to treatment. Even though these participants did not go for formal help at a treatment agency, a substantial proportion reported making some changes on their own.

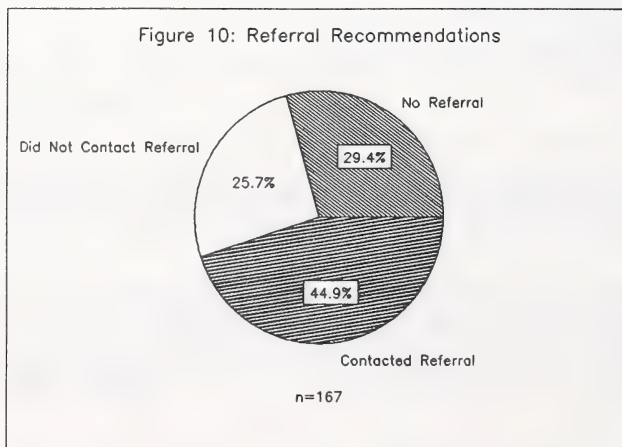


Table 13: Reasons For Not Following IMPACT Recommendations

Reason	Percent of Participants Interviewed (n = 43)
Felt did not need treatment	53.5%
Made changes on own	37.2%
Difficulties getting to treatment (e.g. working, no transportation)	30.2%
Had already been through treatment	14.0%
Felt not ready for treatment	14.0%
Felt referral was inappropriate (e.g. dislike philosophy of group/agency)	11.6%
Other	2.3%

3.2.2.4 Summary

The findings concerning changes made by participants since attending IMPACT suggest that in general:

- * Participants' substance use has decreased during the follow-up period.
- * Overall, functioning in most major life areas of participants has improved since IMPACT attendance.
- * Just under half of the participants followed through on an IMPACT referral recommendation and the two most common referral recommendations followed were to AADAC (outpatient services) and AA.
- * A substantial proportion of participants did not contact formal help; instead, they preferred to make changes on their own.

3.2.3 Characteristics of Participants Benefitting from IMPACT

So far the findings have focussed on two different outcomes of the IMPACT program: impaired driving recidivism, and changes in participants' behavior. This provides an overview of how participants are doing after IMPACT, but it does not provide specific information about who does well or does not do well after completing the program. In this section the indicators of IMPACT's outcome results are examined in terms of how participants were assessed to better understand who is benefitting from IMPACT. In addition, participants' views of the effectiveness of IMPACT are discussed.

The IMPACT program involves participants in an assessment of their alcohol and/or drug use. Part of the assessment involves small group discussions regarding the impact of alcohol and/or drug use on the different major life areas. By the end of the program, facilitators have indicated the extent to which participants' substance use appears to be affecting their major life areas. During the 1986/87 fiscal year, each major life area was rated as either one of three categories: not severe problems; moderately severe problems, and very severe problems. For purposes of this study, an overall major life area score was calculated for each participant from IMPACT file information. Scores ranged from 7 to 21 where a low score indicated less severe problems in the major life areas and a high score indicated more severe problems. The average major life area score was 15.5.

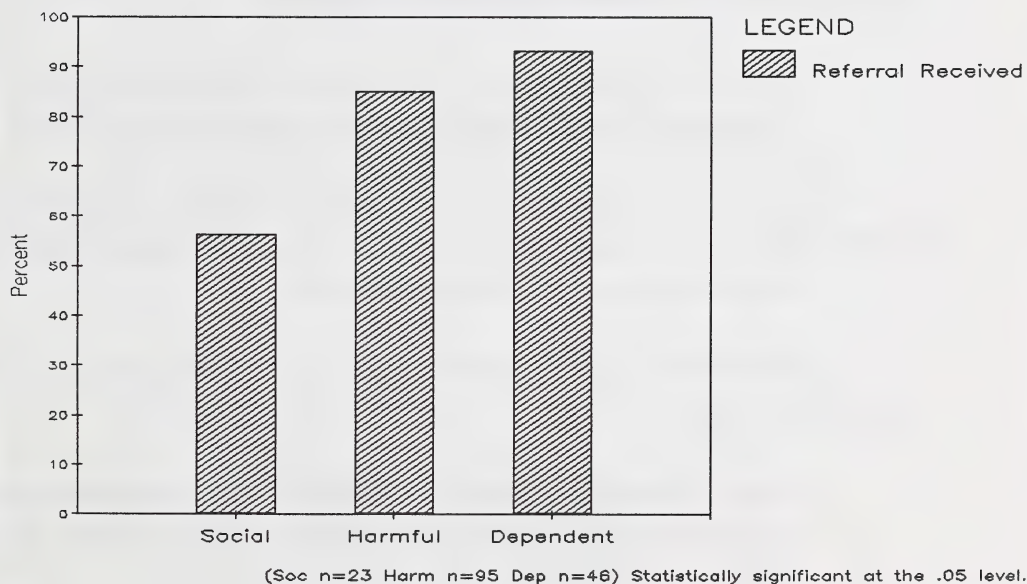
3.2.3.2 Assessment Ratings

As shown in Table 14, average major life area scores were highest for participants assessed as dependent users of alcohol and/or drugs. Also, as illustrated in Figure 11, the majority of those assessed as harmfully-involved and dependent users received at least one referral recommendation at IMPACT. As expected, then, the participants with more severe problems in their major life areas were more likely to be assessed as having alcohol and/or drug problems and to receive a referral recommendation.

Table 14: Average Major Life Area Scores by IMPACT Facilitator Assessment Rating

Assessment Rating	Mean
Social use (n=23)	12.4
Harmfully-Involved use (n=95)	14.7
Dependent use (n=46)	18.2

Statistically significant differences between all three assessment rating categories at the .05 level.

Figure 11: Percent Receiving IMPACT Referral Recommendations by Facilitator Assessment Ratings

3.2.3.2 Assessment Ratings by Outcome Measures

The outcome measures including impaired driving recidivism, types of action taken, abstinence, and treatment services contacted post-IMPACT were examined by participants' assessment ratings. In terms of impaired driving convictions post-IMPACT, no statistically significant differences were found among participants assessed as social, harmfully-involved, or dependent users. This finding is inconsistent with the driving record finding which indicated that a larger proportion of those assessed as dependent users reconvicted post-IMPACT than those assessed as either social or harmfully-involved users. This inconsistency may be due to sampling error. Possibly, participants with more serious substance use problems and who have reoffended for impaired driving post-IMPACT, were more difficult to contact for an interview. This means they may be under represented in the sample of participants interviewed.

Figure 12 presents the most common types of action taken after IMPACT by assessment ratings. The findings suggest the following:

- * A large percentage of those assessed as dependent referred to receiving support from family and friends and contacting a treatment service.
- * In contrast, larger proportions of those assessed as social or harmfully-involved mentioned making changes on their own and using strategies to avoid further impaired driving convictions.

Looking more closely at specific types of action taken, Figures 13 and 14 show the following:

- * A large proportion of those assessed as dependent were abstinent at the time of the interview and contacted AA and/or AADAC during the follow-up period.
- * In contrast, a greater percentage of participants assessed as harmfully-involved contacted AADAC services than those assessed as social or dependent users.

Figure 12: Action Taken Post-IMPACT by Facilitator Assessment Rating

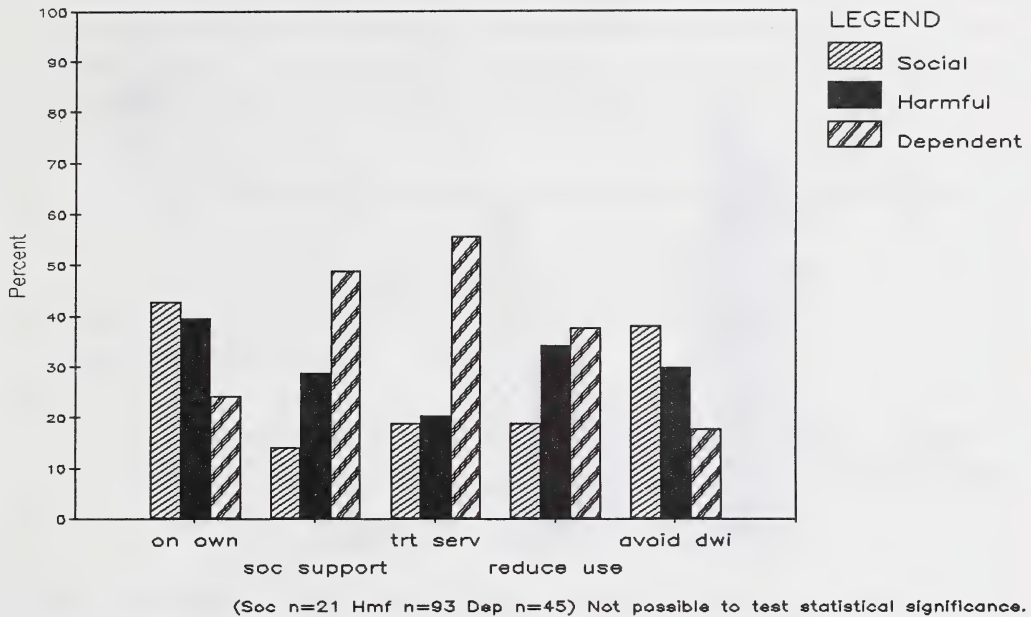


Figure 13: Abstinence at Time of Interview by Facilitator Assessment Rating

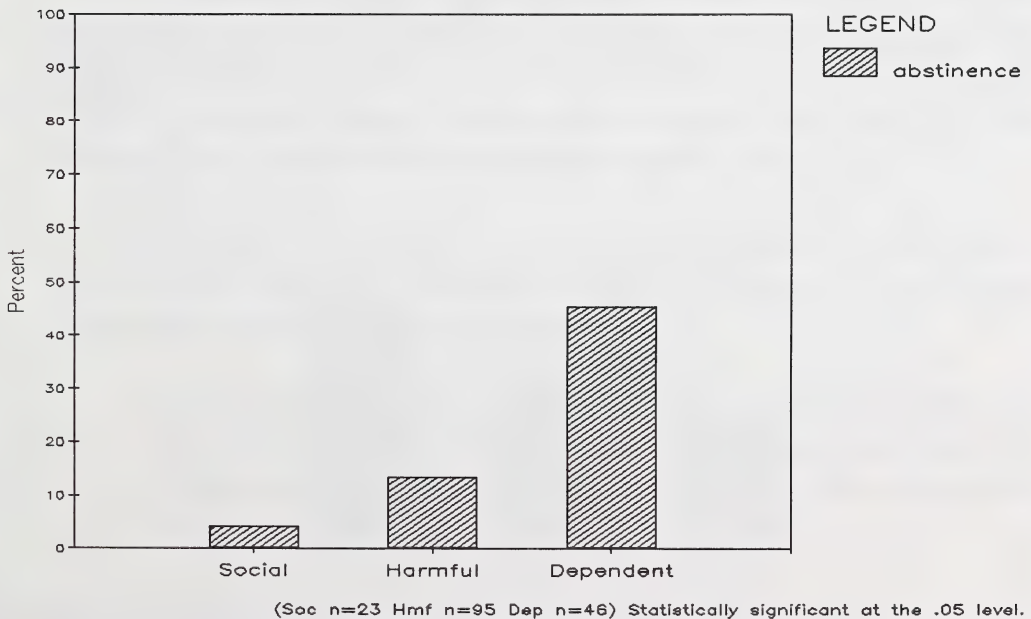


Figure 14: Services Contacted Post-IMPACT by Facilitator Assessment Rating

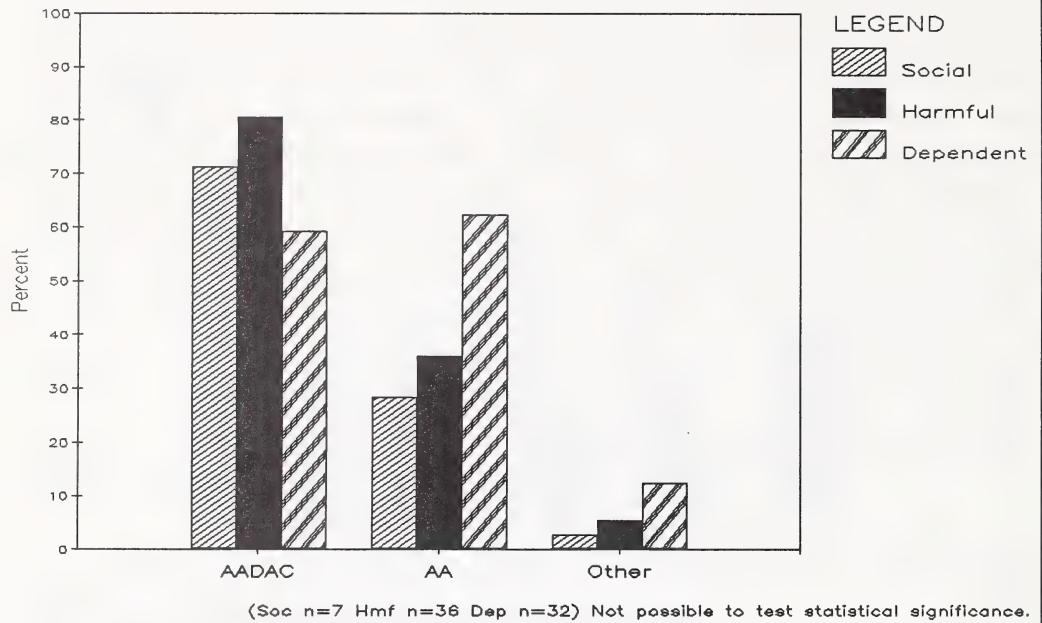
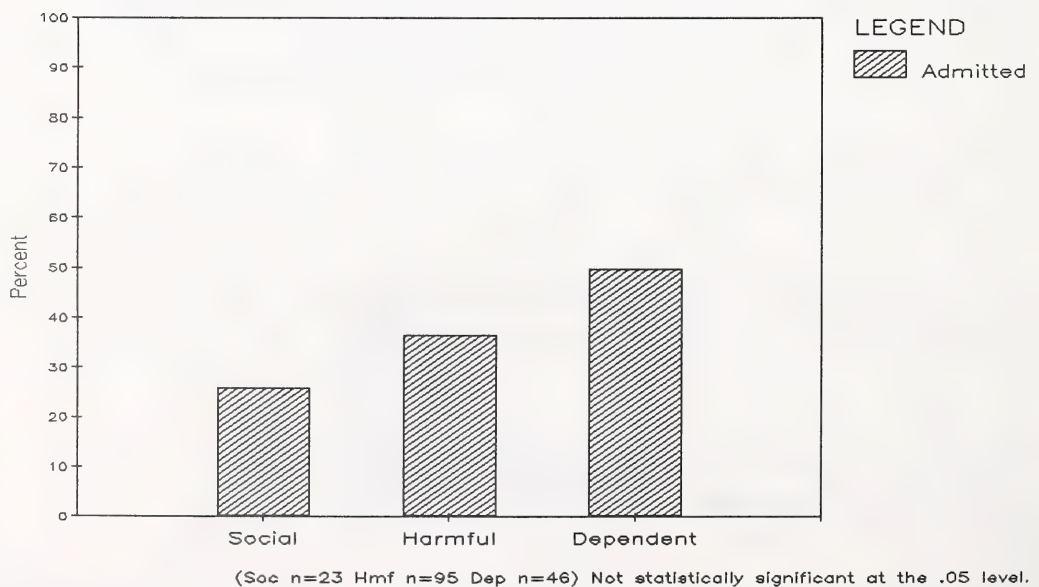


Figure 15: Admissions to AADAC and Funded Agencies by Facilitator Assessment Rating



In terms of AADAC and Funded Agency admissions, no statistically significant differences were found by assessment ratings (Figure 15). However, when the results are graphically displayed, it suggests that a greater proportion of those assessed as dependent were admitted to AADAC and Funded Agencies than those assessed as social or harmfully-involved with alcohol and/or drugs.

3.2.3.3 Impaired Driving Convictions Post-IMPACT by Action Taken

Figures 16 and 17, show the percentages of participants abstinent at the time of the interview and admitted to AADAC and Funded Agencies by impaired driving convictions post-IMPACT.

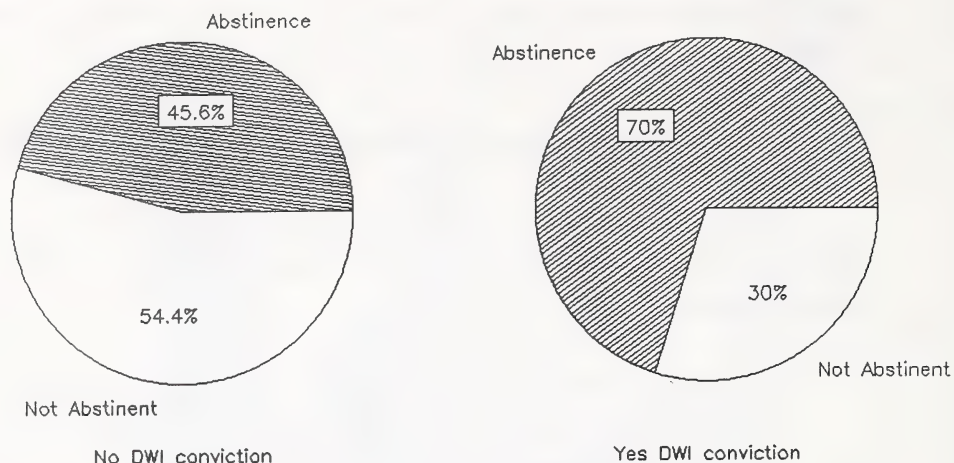
- * A greater percentage (70%) of participants who reoffended post-IMPACT were abstinent at the time of the interview than the percentage (45.6%) of participants who did not reoffend post-IMPACT.
- * As well, a larger percentage (78.3%) of those who reoffended post-IMPACT were admitted to AADAC and Funded Agencies compared to those who did not reoffend (32.6%) during the follow-up period.

These findings suggest that the participants with more serious impaired driving problems are the ones choosing abstinence and attending treatment after IMPACT; however, they still reoffended in the follow-up period. It is possible that it took an additional impaired driving conviction before these participants were willing to acknowledge that they had problems with their substance use.

To examine this possibility, the 18 participants who reoffended for impaired driving and were admitted to AADAC and Funded Agencies were looked at further. Table 15 presents a summary of the findings.

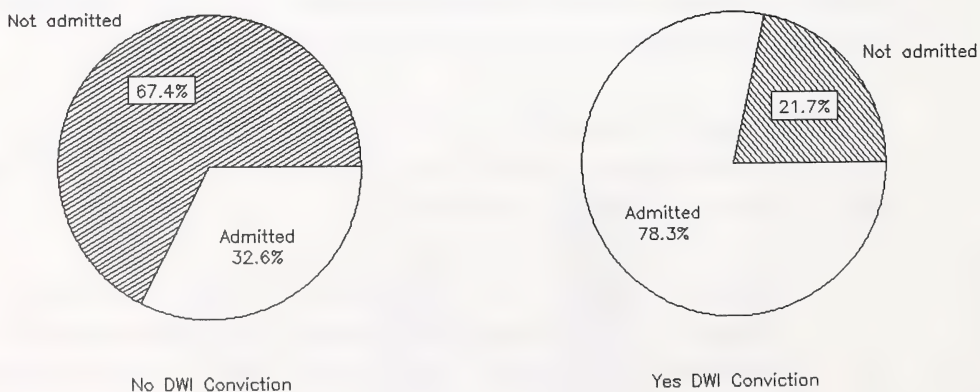
- * Among participants who reoffended in the follow-up period and were admitted to AADAC and Funded Agencies, the largest proportion (50%) reoffended for impaired driving after they had been admitted for treatment.

Figure 16: Abstinence at Time of Interview
by Impaired Driving Convictions
Post-IMPACT



(No conv n=131 Yes conv n=36) Statistically significant at the .05 level.

Figure 17: Admissions to AADAC and
Funded Agencies by Impaired Driving
Convictions Post-IMPACT



(No conv n=144 Yes conv n=23) Statistically significant at the .05 level.

Table 15: Admission(s) to AADAC and Funded Agencies for Study Participants who Reoffended for Impaired Driving Post-IMPACT

Sequence of Events	Percent of Participants Interviewed (n = 18)	Number in Outpatient Treatment	Number in Inpatient Treatment
Reoffended BEFORE admitted (n = 6)	33.3%	4	2
Reoffended AFTER admitted (n = 9)	50.0%	8	1
Unknown (n = 3)	16.7%		

- * Regardless of whether participants reoffended for impaired driving before or after admission to treatment, most of the admissions were for outpatient treatment.

Somewhat unexpectedly, more participants reoffended after admission to treatment than before treatment. In part, this may be explained by the type of treatment received. Although most received outpatient treatment, there were some differences in number of visits.

- * Most (77.8%) of the participants reoffending after treatment only had one or two outpatient visits. Whereas only one-third (33.3%) of the participants reoffending before treatment had one or two outpatient visits.

These findings suggest that it is probably unrealistic to expect that participants with more serious problems will be able to resolve their difficulties in just two outpatient visits. It is not uncommon for persons dealing with substance use problems to have periods of relapse (Krippenstapel, 1987). Recovery from serious substance use problems is often a difficult and long term process.

3.2.3.4 Predictors of Success Post-IMPACT

One of the objectives of this study was to identify any factors that are useful predictors of impaired driving recidivism and follow-up on IMPACT referral recommendations. Three categories of factors were examined as possible predictors: (1) demographic factors such as age; (2) driving record factors such as the number of pre-program impaired driving convictions; and (3) level of substance use problems such as severity of problems in major life areas and assessment rating.

The variables corresponding to these three categories of factors were examined in relation to the number of impaired driving convictions and admissions to AADAC and Funded Agencies post-IMPACT. The analyses did not reveal any useful predictors of impaired driving or follow-up on referral recommendations to AADAC and Funded Agencies.

3.2.3.5 Participants' Views of IMPACT

In the telephone interview participants were asked to comment on their level of satisfaction with IMPACT and give their opinion on the effectiveness of IMPACT. This section highlights participants' responses to these questions.

- * As shown in Figure 18, the majority (89.5%) of participants indicated that they were either somewhat satisfied or very satisfied with the IMPACT program.

In addition, many participants provided comments on what they liked and disliked about the program.

- * As shown in Table 16, the more common comments from participants were that they thought IMPACT was a good program (25.6%), it got them thinking and opened their eyes (25.0%), and they liked various parts of the program such as small groups (37.8%).
- * Also shown in Table 16, the more negative comments referred to the length of the program (e.g. long hours) (14.7%) and to how resistant participants spoiled it for others who were more enthusiastic (11.5%).

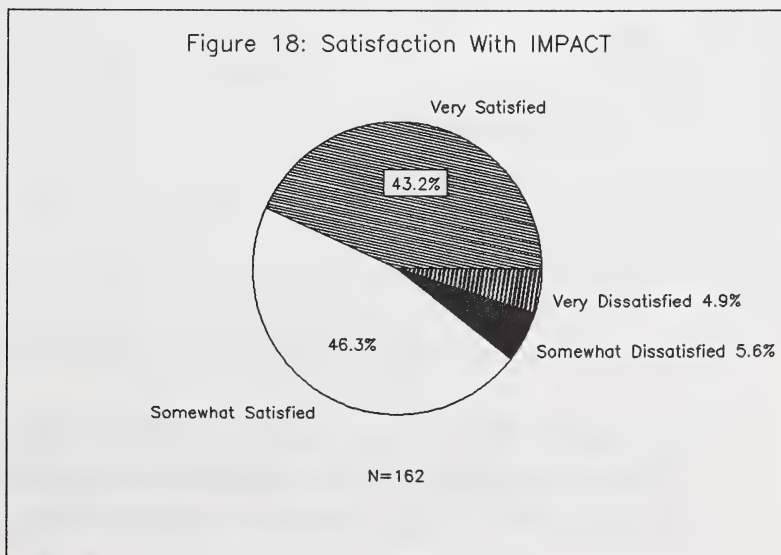


Table 16: Participants' Satisfaction and Dissatisfaction with IMPACT

Comments	Percent of Participants Interviewed (n = 156)
Positive Comments	
Good program/enjoyed	25.6%
Gained insight/opened eyes	25.0%
Liked parts (e.g. small groups, films)	37.8%
Met and learned from others	28.8%
Learned a lot	17.9%
Felt supported/accepted	16.0%
Helped make decision about substance use	10.9%
Initially resistant then accepted program	10.3%
Liked intensity, design	9.6%
Negative Comments	
Hours long, like incarceration	14.7%
Resistant participants spoiled it	11.5%
Disliked staff	9.0%
Disliked parts (e.g. small groups, films)	8.3%
Hated program, boring	7.7%
Disliked content (e.g. assessment categories)	5.1%
Disliked facility, food	4.5%

Table 17: Participants' Comments Regarding the Effect of IMPACT

Comments	Percent of Participants Interviewed (n = 157)
No effect	10.8%
Good effect/helped	45.2%
Gained insight	29.3%
Helped avoid impaired driving	29.3%
Helped with alcohol/drug use	17.8%
A little effect	16.6%
Increased confidence/self-esteem	8.9%
Generally life better	7.6%
Helped get licence back	2.5%
Negative worse effect	.6%

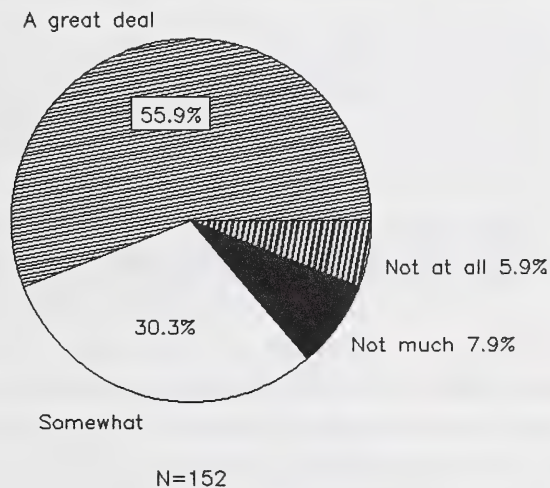
Participants were also asked for their opinions on the effect of IMPACT.

- * As shown in Figure 19, the majority (86.2%) of participants interviewed thought the program helped them somewhat or a great deal to prepare for high risk situations that might result in impaired driving.

Participants' comments regarding the effect of IMPACT are summarized in Table 17.

- * Among participants commenting, 88.6% indicated that the program had some type of positive effect. The most common response (45.2%) was a general statement that they felt the program had a good effect.

Figure 19: How much did IMPACT help you to prepare for situations in which you are at high risk to drive while impaired?



There seemed to be differing opinions as to whether IMPACT just helped with impaired driving or whether it helped with impaired driving and substance use. For example, some of the participants' specific comments were as follows.

"I went in with a bad attitude (to have to spend a weekend after 2 weeks in jail) and I left with a different attitude...Really enjoyed it. It really opens your eyes up and gives you lots to think about. Even now when I go to the bar, I think about how to get home. Opens eyes about home life also."

"Had a large effect. Opened my eyes to what it can do, leading to dependency. I thought I could handle it, but eventually I got out of control and got in trouble with it -- fight, accident. It made me aware of what alcohol is. The main thing is that you can't force people to go to IMPACT; it will only have a temporary effect. But for people who really want to change it is very good".

"I don't think IMPACT stopped anybody from drinking. Only way can do anything is if you do it yourself. Can't make people stop in 2 days. I don't think it changed anyone there. For everyone, drinking equals a good time and action. Everyone was about the same, just more careful about drinking and driving. It helped me not to drink and drive so much. Lots of things have changed, got better, but not because of IMPACT, because of my common law partner."

"Little effect. Initially for the first while IMPACT helped. Than I drove while impaired once, and then another time and it got easier. But not very often, only 4 times since IMPACT. It helped cut down the impaired driving."

These few examples of participants' comments are not necessarily representative of all IMPACT participants, but they serve to highlight the more common responses heard in the interviews (Appendix C outlines other examples of participants' comments). In particular, these comments illustrate different reactions to IMPACT. First, for some participants IMPACT has a very positive effect in increasing self-awareness and providing a new perspective on how their substance use has been affecting their lives. Second, for others the focus seems to be more specific to impaired driving. These comments in conjunction with the other findings in this report, suggest that even for fairly resistant participants impaired driving is reduced after IMPACT. Third, these comments also suggest that for some participants the improvement in their impaired driving behavior may be temporary. That is, in time it becomes easier to drive impaired again. Finally, some comments seem to suggest that factors, other than IMPACT are also influential in helping participants make behavioral changes, for example, "a common law partner".

3.2.3.6 Summary of Characteristics of Participants Benefitting from IMPACT

The major findings concerning characteristics about participants who do well and do not do well after IMPACT are summarized below. When comparing participants assessed as social, harmfully-involved and dependent users, the following was found:

- * Those assessed as dependent are more likely to:
 - reoffend for impaired driving
 - utilize support from family and friends
 - choose abstinence
 - contact a treatment service such as A.A. and/or AADAC
- * Those assessed as social or harmfully-involved are more likely to:
 - make changes on their own after IMPACT
 - use strategies to avoid impaired driving
 - contact AADAC rather than AA, if they decide to contact formal help
- * Overall, most participants were satisfied with IMPACT and felt the program helped them avoid impaired driving.
- * Participants' views about the effect of IMPACT may be divided into two categories: (1) one view was that IMPACT has a positive effect on substance use and impaired driving; and, (2) another view was that IMPACT only has a positive, but temporary, effect on impaired driving.

4. DISCUSSION AND CONCLUSIONS

Considering the major findings from both the driving record analysis and telephone interviews, this section discusses the findings in relation to the five study objectives.

1. To determine if IMPACT has any positive effect on impaired driving recidivism.

Both IMPACT and AIDC had a similar recidivism rate of approximately 12%. This finding suggests that IMPACT is having some positive effect on impaired driving recidivism. First, the impaired driving recidivism rate of 12% compares favorably to other study findings. The recidivism rates reported by other studies varies considerably. Table 18 presents the recidivism rates of just a few studies to illustrate the range of rates. Studies #1 and #2 indicate recidivism rates of 20% to 30% based on monitoring repeat impaired driving offenders without any type of impaired driving program. In contrast, studies #3 through #5 examined impaired driving offenders of various types of treatment programs and generally reported lower recidivism rates ranging from 6.1% to 21.8%. The IMPACT and AIDC recidivism rates were well within this range. Although these studies are not exhaustive and differ in terms of a variety of factors such as length of follow-up time and types of treatment, they provide some context for interpreting IMPACT's recidivism rate.

Second, the recidivism rate of 12% for IMPACT is much lower than the recidivism rate of AADAC's initial impaired driving program. AADAC records show that the initial one day educational program (AIDC) for all types of impaired driving offenders resulted in a recidivism rate of about 30% (AADAC, 1983-84).

As well, it is important to keep in mind that in this study impaired driving recidivism only referred to detected impaired driving. The study findings from the telephone interview suggest that some participants have driven undetected while impaired since attending IMPACT; however, the frequency seems to have decreased.

Table 18: Reported Recidivism Rates for Impaired Driving

Study	Sample(s)	Length of Follow-up	Recidivism Rate
1. Maisto et al., (1979)	Driving records of persons convicted of at least 1 DWI* during a 14 mth period in Tennessee n=2000	65 months	- 22.65%
2. Gjerde & Morland (1988)	Follows repeat impaired driving offenders in Norway	2 years	- 20% rearrested within one year - 30% rearrested within two years
3. Booth and Grosswiler (1978)	Impaired driving clients of an alcohol treatment program n=96: - interviewed n=47 - noninterviewed n=49	6 months to 3 years	- interviewed 10.6% - noninterviewed 6.1%
4. Siegal (1985)	Two year evaluation of the Weekend Intervention Program (WIP) - repeat offenders: WIP n=261 non-WIP n=365	At least 270 legal driving days after WIP	- WIP sample 21.8% - non-WIP sample 27.9%
5. McCarty & Argeriou (1986)	Compares DWI offenders who are incarcerated n=190 and participants of a 14 day residential alcoholism treatment program n=200 (Massachusetts)	2 years	- treatment sample 10.05% - incarcerated sample 19.47%

* DWI refers to driving while impaired.

2. **To examine changes in IMPACT participants' pattern of mood altering drug use and level of functioning in various major life areas (e.g., family life, job).**

The study findings suggest that participants' pattern of substance use and functioning in major life areas improved since IMPACT attendance. All indicators of the amount and frequency of substance showed a reduction.

Consistent with these findings, problems in most major life areas decreased. For example, the level of unemployment among participants was considerably lower post-IMPACT. As well, many participants indicated involvement in social activities that excluded alcohol and/or drug use.

3. **To examine participants' post-IMPACT behaviors such as follow through on IMPACT referral recommendations and strategies to avoid impaired driving.**

The study findings suggest that most participants have taken some sort of action to either avoid impaired driving or to deal with their substance use problems. Just under half of the participants reported following through on an IMPACT referral recommendation, more commonly to AADAC or AA. A substantial number did not contact an IMPACT referral mainly because they did not feel they needed treatment. Instead, these participants felt they could make changes on their own without formal help.

4. **To examine the characteristics of participants who do well and who do not do well after the IMPACT program.**

The study results suggest that there are differences in how participants do after IMPACT depending on the seriousness of their alcohol and/or drug use problems. Participants assessed as social and harmfully-involved users tend to use strategies to avoid impaired driving and prefer to make changes on their own without formal help. If they do want more formal help, they are more likely to contact AADAC as opposed to AA.

In contrast, participants assessed as dependent users were more likely to contact a treatment service (AADAC and/or AA) and receive support from family and friends during the follow-up period after program attendance. Despite this, driving record findings indicated that they were also more likely to be reconvicted for impaired driving post-IMPACT. In other words, the participants with more serious substance use problems are going to treatment post-IMPACT, but they are also the ones more likely to reoffend.

To some extent, these findings make sense. Participants with serious alcohol and/or drug use problems are at higher risk for impaired driving. They may participate in treatment, but brief participation in treatment is unlikely to result in immediate and long lasting behavior change. It is more probable that behavior change is a gradual process involving a series of periods of improvement followed by relapse and then some further improvement. For these participants, a more extensive abstinence based type of treatment is required.

5. To determine if these characteristics are useful predictors of impaired driving recidivism and referral compliance.

When examining three categories of factors (demographic, driving record, and assessment factors), this study did not find any useful predictors of impaired driving recidivism or referral recommendation compliance. In part, this finding is not surprising for two reasons. First, the measure of referral recommendation compliance was limited. It only measured compliance with AADAC referrals; thus, it excluded any other types of referral recommendations contacted such as AA. Second, some participants' comments suggested that there were many factors that accounted for their improved driving behavior which means that it is difficult to identify specific predictors. For example, some participants stated that it was not solely IMPACT that changed their behavior. Rather, it was a combination of factors such as licence suspension, fines, legal fees, insurance costs, the effect on their jobs, relationships with family and friends as well as IMPACT that influenced any changes they made during the follow-up period. It seems that IMPACT helps by providing participants with an opportunity to review these life events from a different perspective and then assists participants in developing strategies to deal with their problems.

5. RECOMMENDATIONS

Based on the study findings presented above, the following recommendations are suggested.

Recommendation #1: That the IMPACT program continue to be delivered.

Rationale #1: The study findings suggest that participants are benefitting from the IMPACT program. The vast majority (88.4%) of participants did not reoffend for impaired driving during the follow-up period. The impaired driving recidivism rates were similar for IMPACT and AIDC. Given the more serious impaired driving problems of IMPACT participants and the intensity of the IMPACT program compared to AIDC, this suggests that IMPACT is having a positive effect.

As well, several of the telephone interview findings are positive. First, the majority of participants have decreased the amount and frequency of their alcohol and/or drug use. For example, just under half of the participants interviewed reported some periods of abstinence during the follow-up period. Second, there were significant improvements in participants' functioning in most major life areas. For instance, at the time of the interview two-thirds of the participants were employed full-time whereas only half of the participants were employed full-time at the time of their IMPACT attendance. Third, participants reported taking different types of action to avoid impaired driving and/or deal with their substance use problems. Some participants made changes on their own such as using different strategies to avoid impaired driving or reduce their drinking. Others indicated seeking more formal help. Almost half of the participants interviewed contacted one of the referral recommendations they received at IMPACT. The findings also indicated that the participants with the most serious substance use problems are the ones seeking treatment.

Although these positive changes cannot be solely attributed to IMPACT, the findings do suggest that IMPACT contributes to participants making significant improvements in their lives. The majority (88.6%) of participants felt that IMPACT had some type of positive effect. Participants face a variety of events surrounding their impaired driving (e.g. licence suspension, fines, effect on jobs) and IMPACT

provides them the opportunity to review these events from a different perspective and then assists participants in developing ways to deal with their problems.

Recommendation #2: In future program development, consider the possibility of designing a follow-up component to the IMPACT program.

Rationale #2: The driving record findings indicated that participants were more likely to reoffend for impaired driving within the first year after IMPACT attendance. The period with the highest probability for reoffending was at six months post-program. These findings were consistent with comments made by some participants that IMPACT had a temporary effect. That is, gradually over time it becomes more difficult for some participants to refrain from impaired driving. Possibly, a follow-up component to the IMPACT program would assist participants through this high risk period and it would help participants address difficulties encountered in using different strategies to avoid impaired driving. This might be achieved in a variety of ways. One option might be to educate participants in the program on the chances of recidivism, when it is most likely to occur, and discuss ways to prevent it including following referral recommendations. Extending this further, another possibility might be to send the IMPACT Assessment Summary to the Driver Control Board (DCB) for high risk participants assessed as dependent. As a counselling and enforcement agency, DCB has the authority to set additional conditions for drivers licence reinstatement such as following IMPACT referral recommendations.

Recommendation #3: In future program development, consider the importance of informal support networks as a resource to help participants achieve lifestyle changes they have identified.

Rationale #3: The study findings highlight the importance of social support both as a facilitator and barrier to behavior change. A positive finding was that many of the participants assessed as having more serious substance use problems indicated informal support from family and friends and attending AA as action they had taken post-IMPACT to deal with their problems related to alcohol and/or drug use. However, there were also some findings indicating that family and friends may sometimes inhibit participants efforts to change. Almost two-thirds of participants reported some drinking and driving behavior by family and/or friends suggesting that it is fairly common behavior in their social contexts. As well, a few participants commented that when they reduced their drinking, they felt social pressure to drink

and they had no social life. It would be useful to increase participants' awareness of the influences of family and friends and help them prepare for dealing with such issues. One way to achieve this might be to place greater emphasis in the program on informal supports, for example during the small group session on high risk situations. Another possibility might be to incorporate a family component into the IMPACT weekend. Perhaps on the Sunday of the program, participants' significant others (e.g. spouses) might attend a group session that would provide information on addictions and involve them in participants' action plans post-IMPACT.

Recommendation #4: In future program development, explore possible mechanisms whereby participants with more serious alcohol and/or drug use problems are facilitated in entering more extensive treatment services.

Rationale #4: The study findings suggest that there are a small number of participants with more serious alcohol and/or drug use problems who are reoffending for impaired driving after attending IMPACT, even though they have taken some type of remedial action. Findings from the large IMPACT sample showed that a larger proportion of participants assessed as dependent were reconvicted for impaired driving and admitted to AADAC and Funded Agencies than those assessed as social or harmfully-involved users. As well, of all participants admitted to AADAC and Funded Agencies, almost one-quarter were reconvicted of impaired driving during the follow-up period. This is approximately two times greater than the 11.6% recidivism rate of the overall sample of IMPACT participants.

Similar findings were observed among participants who were interviewed. A greater percentage of participants assessed as dependent were abstinent at the time of the interview and contacted a treatment service than those assessed as social or harmfully-involved users. As well, a larger proportion of participants who reoffended post-IMPACT were abstinent at the time of the interview and were admitted to AADAC and Funded Agencies than those who did not reoffend post-IMPACT. For most of those admitted to AADAC and Funded Agencies and who reoffended, treatment was brief. That is, it only consisted of one or two outpatient visits. The higher impaired driving recidivism rate for this group suggests that brief outpatient treatment is insufficient to address their problems. These participants would probably benefit from more extensive abstinence based treatment services. This might be accomplished with the assistance of the Driver Control Board (DCB).

For example, DCB could require that high risk participants, such as those assessed as dependent, maintain a period of abstinence in order to have their drivers licence reinstated. It would be participants' responsibility to decide on how to achieve this goal and with what resources. As well, participants would be responsible for supplying evidence of their abstinence to the board such as by obtaining a reference from an AA sponsor.

Recommendation #5: In future program development, more emphasis should be placed on Driver Education referral recommendations.

Rationale #5: This study found that over a third of the IMPACT participants were reconvicted for other driving offences post-IMPACT. Other driving convictions included a variety of driving offences that were not specifically related to alcohol or drug use such as speeding, careless driving, and failure to report an accident. This finding suggests that some participants may have driving problems as well as substance use problems which in combination results in impaired driving convictions. IMPACT deals with the substance use problems, not driving problems. To deal with the driving problems, participants with several other driving convictions may benefit from a referral recommendation to a course designed to improve their driving skills.

Recommendation #6: Continue to monitor outcome results of the IMPACT program.

Rationale #6: To more accurately determine the impaired driving recidivism rate post-IMPACT, it would be useful to monitor the driving records of a sample of participants involved in this study. The rare occurrence of detected impaired driving makes it difficult to detect small or moderate differences in recidivism rates without long follow-up periods (e.g. 5 years). The recidivism rate based on a five year period is likely to differ from the recidivism rate of 11.6% found in this study based on a follow-up period of 1.5 to 2.5 years.

As well, it is important to determine the outcome results for participants completing the current IMPACT program. This study examined participants who attended IMPACT during the initial implementation phase of IMPACT's development. Program changes were introduced in May 1988 which might influence the outcome results of participants completing the program after this date. In particular, the current IMPACT program places more emphasis on relapse

prevention. More time is devoted to identifying high risk situations for substance use and developing strategies for dealing with such situations. With this program change, it is possible that participants going through the current program are more prepared to handle high risk situations and subsequently less likely to reoffend for impaired driving post-IMPACT.

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APPENDIX A

IMPACT Outcome Study Telephone Interview Questionnaire

IMPACT OUTCOME STUDY

Telephone Interview Schedule

Hi - my name is _____. I'm phoning you about the IMPACT program you attended on _____. (fill in dates before beginning interview). Have you received our letter?

I work with IMPACT and AADAC. AADAC sponsors the IMPACT program and wants to see what people think of IMPACT, and how they have been doing since IMPACT. To do that, we are contacting people like yourself who have attended IMPACT in the past.

I would like to ask you some questions.

Do you have time to go through the questions now?

NO: What is a better time to call you? _____

YES: Any questions before we begin?

Anything you tell me will be kept strictly confidential. Your answers will be grouped with those of a lot of other past IMPACT participants, they will not be looked at individually, and I am the only person who sees your answers.

(If verification requested, have respondent call Kathy Huebert or Rick Jeune at 427-4275.)*

(Interviewer: Always write down as much detail as possible and probe - codes can be worked out later.)*

* -- (throughout the interview, brackets indicate comments to the interviewer).

I. DEMOGRAPHICS

First, I have some general questions.

1. a. What is your current occupation?

- 9 --- don't know / refusal
- b --- missing

b. Are you working now?

- 0 --- unemployed
- 1 --- employed full-time or self employed
- 2 --- employed part-time or casual
- 3 --- other e.g. student, retired, homemaker on disability leave
- 9 --- don't know / refusal
- b --- missing

2. What is your marital status? (circle appropriate response)

- 1 --- single
- 2 --- married
- 3 --- separated
- 4 --- divorced
- 5 --- widowed
- 6 --- common-law
- 9 --- don't know / refusal
- b --- missing

3. How long have you had an Alberta driver's license?

(record number of years) _____
 have never held an Alberta license --- 00
 don't know / refuse to answer --- 99
 missing -- bb

4. Since 1975 / Since you got your Alberta license have there been any times when you haven't been driving in Alberta, other than when your license was suspended?

Some examples might be times when you were living or working out of province, hospitalized, in jail, or when you didn't have a vehicle.

number of days not driving pre-IMPACT: _____
 number of days not driving post-IMPACT: _____

II. DRINKING BEHAVIOR / PATTERN OF CONSUMPTION

Now I would like to ask you some questions about your drinking and/or drug use in the time since the IMPACT weekend of _____ to _____.

Please keep in mind that for the rest of the interview, I am asking questions only about the time since the IMPACT weekend of _____. Have you attended IMPACT before or after that time?

IF YES: Please ignore those other times and answer the questions only in reference to the time since that one weekend of _____.

(If respondent says s/he has been abstaining since IMPACT, explain that you still would like to go through the questions, but that s/he will have a chance to make it clear that s/he has not been using).

5. Since completing IMPACT, which of the following substances have you used?

00 --- none --->GO TO #7	yes	no
01 --- alcohol -----	1 --	0
02 --- marijuana/hashish -----	1 --	0
03 --- tranquilizers -----	1 --	0
04 --- barbiturates or downers -----	1 --	0
05 --- amphetamines or uppers -----	1 --	0
06 --- hallucinogens -----	1 --	0
07 --- heroin/opiates -----	1 --	0
08 --- other (prompt such as cocaine, T's & R's, solvents) -----	1 --	0
09 --- other -----	1 --	0
10 --- other -----	1 --	0

Which one have you used most often? _____

6. Are you currently using alcohol or drugs (A/D)?

0 --- no
1 --- yes
b --- missing

7. How many times since IMPACT have you not been using A/D?

number of periods of abstinence _____

bb --- missing

8. ASK ONLY IF CURRENTLY ABSTINENT: How long have you been abstinent? (total weeks)

9999 --- don't know / refusal

number of weeks

bbbb --- missing / not applicable - using

9. ASK ONLY IF PERIODS OF ABSTINENCE: For what reasons did you stop using alcohol or drugs?

9 --- don't know / refusal

b --- missing / not applicable - using

10. ASK ONLY IF CURRENTLY ABSTINENT: Were there any times since IMPACT when you have been using?

0 --- no ---->GO TO #17

1 --- yes

9 --- don't know / refusal

b --- missing / not applicable - using

11. ASK ONLY IF PERIODS OF USE: For what reasons did you start using again after abstaining?

9 --- don't know / refusal

b --- missing / not applicable - using

12. I'll read off the days of the week. Please tell me whether you typically use alcohol or drugs on . . .

	yes	no
Monday -----	1 --	0
Tuesday -----	1 --	0
Wednesday -----	1 --	0
Thursday -----	1 --	0
Friday -----	1 --	0
Saturday -----	1 --	0
Sunday -----	1 --	0
don't know / refusal -----		9
missing -----		b

13. IF ALCOHOL USED: How many drinks do you typically have at one time? One drink means 1 shot of hard liquor (1.5 oz.), 1 glass of wine (5 oz.), or 1 bottle of beer (8 oz.).

1 --- 1 drink
 2 --- 2-3 drinks
 3 --- 4-6 drinks
 4 --- 7-10 drinks
 5 --- more than 10 drinks
 9 --- don't know / refusal
 b --- missing

14. In the time since IMPACT, have you used A/D in any of the following places?

	yes	no
1) in a bar or pub -----	1 --	0
2) in a restaurant -----	1 --	0
3) in your own home (house or apartment) -----	1 --	0
4) in other people's homes (houses or apartments) -----	1 --	0
5) at work -----	1 --	0
6) at a private club -----	1 --	0
7) at a social event such as a party, wedding or dance -----	1 --	0
8) at a public event such as a concert, sports event, or festival -----	1 --	0
9) out of doors, such as while fishing, hiking, skiing -----	1 --	0
10) in a motor vehicle -----	1 --	0
11) other -----	1 --	0
12) other -----	1 --	0
13) other -----	1 --	0
- don't know / refusal -----		9
- missing / not applicable - abstaining -----		b

Of these, where do you use A/D most frequently? _____

15. In the time since IMPACT, with which of the following people have you used alcohol or drugs?

	yes	no
1) with spouse/partner or boy/girlfriend -----	1 -- 0	
2) with relatives other than spouse -----	1 -- 0	
3) with friends of the same sex only -----	1 -- 0	
4) with friends of the opposite sex only -----	1 -- 0	
5) with friends of both sexes -----	1 -- 0	
6) with strangers or people met after drinking --	1 -- 0	
7) with people you work with, or business associates -----	1 -- 0	
8) alone -----	1 -- 0	
9) with anyone else - other -----	1 -- 0	
10) with anyone else - other -----	1 -- 0	
- don't know / refusal -----	9	
- missing / not applicable - abstaining -----	b	

Of these, with whom do you use A/D most frequently? _____

16. In the time since IMPACT, when you used A/D, please tell me whether you almost always, sometimes, or almost never used for the following reasons.

Because . . .	Almost always	Some- times	Almost never
- drinking makes you feel happy -----	3 ----	2 ----	1
- you drink because it adds to the enjoyment of social occasions -----	3 ----	2 ----	1
- you drink when you have been under stress -----	3 ----	2 ----	1
- you drink when your friends are drinking -----	3 ----	2 ----	1
- you feel more in control of your life when you drink -----	3 ----	2 ----	1
- drinking puts you in a "party" mood -----	3 ----	2 ----	1
- you drink when you are sad, lonely or depressed -----	3 ----	2 ----	1
- other -----	3 ----	2 ----	1
- other -----	3 ----	2 ----	1
- other -----	3 ----	2 ----	1
- don't know / refusal -----		9	
- missing / not applicable - abstaining -----		b	

17. Would you say that you are using A/D the same, more or less than you did (1 year) before IMPACT?

- 1 --- less
- 2 --- same --->GO TO #19
- 3 --- more
- 9 --- don't know / refusal
- b --- missing / not applicable - abstaining

18. For what reasons are your using more/less alcohol or drugs?

- 9 --- don't know / refusal
- b --- not applicable - abstaining

19. How would you categorize your alcohol or drug use, given the following categories?

- 1 --- social use
- 2 --- harmfully involved
- 3 --- dependent
- 9 --- don't know / refusal
- b --- missing / not applicable - abstaining

20. Following are some statements about drinking and drug use. In the time since IMPACT . . .

	yes	no
Have you felt that you should cut down on your drinking or drug use? -----	1	-- 0
Have people annoyed you by criticizing your drinking or drug use? -----	1	-- 0
Have you felt bad or guilty about your drinking or drug use? -----	1	-- 0
Have you had a drink in the morning to steady your nerves or get rid of a hangover? -----	1	-- 0
9 --- don't know / refusal		
b --- missing / not applicable - abstaining		

We are interested in knowing what kinds of things people do to reduce their drinking or drug use.

21. In the time since IMPACT, have you tried to reduce your drinking or drug use?

0 --- no --->**GO TO #23**

1 --- yes

9 --- don't know / refusal

b --- missing / not applicable - have been abstaining

22. In the time since IMPACT, have you done any of the following to try to cut down on your drinking or drug use?

(if abstinent:) or to try to avoid drinking or using drugs?

	yes	no
Have you skipped parties or other social events? -	1	-- 0
Have you avoided being with friends who drink or use drugs a lot? -----	1	-- 0
Have you gone to bars or pubs less often? -----	1	-- 0
Have you limited the number of drinks you have had, or the amount of drugs? -----	1	-- 0
Have you switched from hard liquor to beer or wine? -----	1	-- 0
Have you started drinking non-alcoholic beverages? -----	1	-- 0
other - -----	1	-- 0
other - -----	1	-- 0
other - -----	1	-- 0
- don't know / refusal -----	9	
- missing / not applicable - abstaining -----	b	

III. DRINKING AND DRIVING

Now I would like to ask you some questions about your driving in general, and also about the arrest that led to your attending IMPACT on the weekend of _____.

23. Did the impaired charge which led to your IMPACT attendance involve an accident?

- 0 --- no ---->GO TO #28
- 1 --- yes
- 9 --- don't know / refusal
- b --- missing

24. Did the accident involve another car apart from the one you were driving?

- 1 --- no, 1 car only
- 2 --- yes, more than one car
- 9 --- don't know / refusal
- b --- missing / not applicable - no accident

25. What do you guess was the total cost of damage?

- 1 --- \$0 to \$500
- 2 --- \$501 - \$1000
- 3 --- \$1001 - \$3000
- 4 --- above \$3000
- 9 --- don't know / refusal
- b --- missing / not applicable - no accident

26. Were you injured in this accident?

- 0 --- no
- 1 --- yes
- 9 --- don't know / refusal
- b --- missing / not applicable - no accident

27. Was anyone else hurt?

- 0 --- no
- 1 --- yes
- 9 --- don't know / refusal
- b --- missing / not applicable - no accident

The next questions refer to your driving since IMPACT.

28. In the time since you completed the IMPACT weekend of _____, have you driven a motor vehicle after having had 2 or more drinks in the previous hour?

0 --- no ---->GO TO #30

1 --- yes

9 --- don't know / refusal

b --- missing

29. How many times in the past thirty days?

number of times _____

99 --- don't know / refusal

bb --- missing / not applicable

30. During the time since you completed the IMPACT weekend of _____, were there any situations where you had to drive after having too much to drink?

0 --- no ---->GO TO #33

1 --- yes:

Which of the following were they?

Because . . .	yes	no
- options were available, but none of them		
appealed to you -----	1	-- 0
- didn't want to leave car / need car -----	1	-- 0
- responsible for driving others home -----	1	-- 0
- unexpected emergency -----	1	-- 0
- no public transportation -----	1	-- 0
- other -----	1	-- 0
- other -----	1	-- 0
- other -----	1	-- 0
- don't know / refusal -----	9	
- missing -----	b	

31. During the time since you completed the IMPACT weekend of _____, have you done any of the following to avoid driving impaired?

Have you . . .

	yes	no
1-asked someone else to drive? -----	1	-- 0
2-taken a taxi, bus, subway, or walked? -----	1	-- 0
3-stayed overnight? -----	1	-- 0
4-stopped drinking early or waited at least one hour before driving? -----	1	-- 0
5-used a breathalyzer test before driving? -----	1	-- 0
-other -----	1	-- 0
-other -----	1	-- 0
-other -----	1	-- 0
-don't know / refusal -----	9	
-missing / not applicable -----	b	

Of these, which do you use most frequently? _____

IF ALL 'NO' ----> GO TO #33

32. IF YES TO ANY OF #31: For which of the following reasons have you tried to avoid driving after you had too much to drink?

	yes	no
-were you afraid of getting caught by the police? -----	1	-- 0
-were you afraid of having an accident? -----	1	-- 0
-were you afraid of losing your licence? -----	1	-- 0
-were you afraid of going to jail?-----	1	-- 0
-did you feel it was wrong to drive impaired? ---	1	-- 0
-was it for personal reasons such as pressure from family or friends, or work? -----	1	-- 0
other - -----	1	-- 0
other - -----	1	-- 0
other - -----	1	-- 0
- don't know / refusal -----	9	
- missing / not applicable -----	b	

33. During the time since you completed the IMPACT weekend of _____, has anyone tried to prevent you from driving because he or she thought you had had too much to drink? Who?

0 --- no --->GO TO #34

1 --- yes:

Which of the following people tried?

	yes	no
1 --- your spouse/partner -----	1	0
Was s/he successful? -----	1	0
2 --- a friend -----	1	0
Was s/he successful? -----	1	0
3 --- a bartender/waiter/waitress -----	1	0
Was s/he successful? -----	1	0
4 --- a stranger -----	1	0
Was s/he successful? -----	1	0
5 --- other -----	1	0
Was s/he successful? -----	1	0
6 --- other -----	1	0
Was s/he successful? -----	1	0
7 --- other -----	1	0
Was s/he successful? -----	1	0
-don't know / refusal -----	9	
-missing / not applicable -----	b	

34. Since the IMPACT weekend, except for CHECKSTOPS, have you been stopped by the police because they suspected you of impaired driving?

0 --- no --->GO TO #36

1 --- yes

9 --- don't know / refusal

b --- missing

35. Were you impaired by alcohol or other drugs at the time?

0 --- no

1 --- yes

9 --- don't know / refusal

b --- missing / not applicable

36. Since the IMPACT weekend have you been charged for a drinking and driving offense?

00 --- no --->GO TO #38

if yes, how many times? _____ (2 digits)

99 --- don't know / refusal

bb --- missing

37. Since IMPACT, have you been convicted or found guilty of a drinking and driving offense?

00 --- no

if yes, how many times? _____ (2 digits)

99 --- don't know / refusal

bb --- missing / not applicable - not charged

38. The following are some statements about driving under the influence. In these statements, "impaired driving" means having had too much to drink to be able to drive safely, regardless of your blood alcohol level, or B.A.C.

Please indicate whether you strongly agree, agree, disagree, or strongly disagree with each statement.

-it usually takes a lot of drinks to make me feel impaired

1 --- strongly agree

2 --- agree

3 --- neither agree or disagree

4 --- disagree

5 --- strongly disagree

9 --- don't know / refusal

b --- missing

-some people drive better after a few drinks

1 --- strongly agree

2 --- agree

3 --- neither agree nor disagree

4 --- disagree

5 --- strongly disagree

9 --- don't know / refusal

b --- missing

-my friends or family would disapprove of me for driving while impaired

1 --- strongly agree

2 --- agree

3 --- neither agree no disagree

4 --- disagree

5 --- strongly disagree

9 --- don't know / refusal

b --- missing / not applicable

39. About how many drinks do you think you can have, over a 2 hour period, before you feel that your ability to drive is impaired? (if range given, take higher number of drinks)
(2 digits)

99 --- don't know / refusal

bb --- missing

40. About how many drinks do you think you can have over a 2 hour period before you are over the legal limit of 0.08% blood alcohol? (if range given, take higher number of drinks)

(2 digits)

99 --- don't know / refusal

bb --- missing

41. In the time since IMPACT, has your spouse or partner, or have any of your close friends or relatives driven after they have had too much to drink?

0 --- no

1 --- yes

9 --- don't know / refusal

b --- missing

42. In the time since IMPACT, has your spouse or partner, or have any of your close friends or relatives been in court and found guilty of a drinking and driving offense?

0 --- no

1 --- yes

9 --- don't know / refusal

b --- missing

IV MAJOR LIFE AREAS

Next, I would like to ask you some questions about seven major areas of your life in the time since you completed the IMPACT weekend of _____. By "major life areas", I mean such areas as legal, financial, job or school, etc.

A. Physical Health

First, I have some questions about the area of your life concerned with physical health.

43.a. OMIT IF ABSTINENT: In the time since IMPACT, have you experienced any of the following effects on your physical health, as a result of your drinking or drug use, or lack of use?

	yes	no
01-hangovers / vomiting -----	1 --	0
02-blackouts / loss of memory -----	1 --	0
03-serious medical problems, such as liver disease or stomach problems -----	1 --	0
04-withdrawal symptoms such as shakes, seizures or D.T.'s -----	1 --	0

Any other effects or any positive changes in your physical health?

-other _____	1 --	0
-other _____	1 --	0
-other _____	1 --	0

9 --- don't know / refusal

b --- missing

43.b. Compared to the time before IMPACT, since IMPACT have you experienced any changes in your physical health?

99 --- don't know / refusal

bb --- missing

B. Job / School

Next, I would like to ask you about the area of your life concerned with job or school.

44.a. OMIT IF ABSTINENT: Since completing IMPACT, have you experienced any of the following effects on your work or school, as a result of your alcohol and drug use, or lack of use?

Have you experienced . . .	yes	no
01-being late for work or school / missing work or school -----	1 --	0
02-poor work performance or poor grades -----	1 --	0
03-frequent job changes / job loss -----	1 --	0
04-demotion / lost promotion -----	1 --	0

Any other effects or any positive changes to your work or school?

-other -----	1 --	0
-other -----	1 --	0
-other -----	1 --	0

9 --- don't know / refusal

b --- missing

44.b. Compared to the time before IMPACT, since IMPACT have you experienced any changes in the area of your work or school?

99 --- don't know / refusal

bb --- missing

C. Social / Leisure

Now, I have some questions about your social and leisure life.

45.a. OMIT IF ABSTINENT: Since completing IMPACT, have you experienced any of the following effects on your social or leisure life, as a result of your alcohol or drug use, or lack of use?

Have you found that . . .	yes	no
01-social or leisure activities mostly involve alcohol or drug use -----	1	-- 0
02-most friends drink or use drugs -----	1	-- 0
03-friends avoid you or are embarrassed by your use ---	1	-- 0
04-getting into fights or having trouble keeping your temper while using -----	1	-- 0

Any other effects or any positive changes to your social and leisure life?

-other _____	-----	1	-- 0
-other _____	-----	1	-- 0
-other _____	-----	1	-- 0

9 --- don't know / refusal

b --- missing

45.b. Compared to the time before IMPACT, since IMPACT have you experienced any changes in the area of your social or leisure life?

99 --- don't know / refusal

bb --- missing

D. Family / Relationships

Next, I have some questions about the area of your life concerned with your family and relationships.

46.a. OMIT IF ABSTINENT: In the time since IMPACT, have you experienced any of the following effects on your family life and relationships as a result of your drinking or drug use, or lack of use?

Have you experienced . . .	yes	no
01-arguments with your family or family avoiding you because of use -----	1 --	0
02-violence when using -----	1 --	0
03-separation or divorce because of A/D -----	1 --	0
04-avoided family responsibilities or broke promises to family members because of use -----	1 --	0

Any other effects or any positive changes in the area of family life and relationships?

-other _____	-----	1 --	0
-other _____	-----	1 --	0
-other _____	-----	1 --	0

9 --- don't know / refusal

b --- missing

46.b. Compared to the time before IMPACT, since IMPACT have you experienced any changes in the area of your family life or relationships?

99 --- don't know / refusal

bb --- missing

E. Emotional and Spiritual Health

Next, I have some questions about your emotional and spiritual health.

47. OMIT IF ABSTINENT: In the time since you completed IMPACT, have you experienced any bad feelings, such as guilt or embarrassment, as a result of your alcohol or drug use?

0 --- no

1 --- yes

9 --- don't know / refusal

b --- missing

48. Compared to the time before IMPACT, since IMPACT have you experienced any changes in your emotional or spiritual health?

9 --- don't know / refusal

b --- missing

F. Financial

Next, I have some questions about the area of your life concerned with finances.

49. Since completing IMPACT, do you think you are spending the same, more, or less on alcohol and/or drugs than you did before IMPACT?

- 1 --- less
- 2 --- same
- 3 --- more
- 9 --- don't know / refusal
- b --- missing

50. Compared to the time before IMPACT, since IMPACT have you experienced any changes the area of life concerned with finances?

- 99 --- don't know / refusal
- bb --- missing

G. Legal

Finally, I would like to ask you about the legal aspect of your life.

51. OMIT IF ABSTINENT: Have you had any non-driving drinking or drug charges since IMPACT? How many?

0 --- no

if yes, record how many: _____ (1 digit)

9 --- don't know / refusal

b --- missing

52. Compared to the time before IMPACT, since IMPACT have you experienced any changes the legal area of your life?

99 --- don't know / refusal

bb --- missing

V. ASSESSMENT AND TREATMENT

The last part of the interview focuses on your IMPACT assessment and any help you may have got since then for your alcohol and/or drug use.

53. You said earlier that in the time since IMPACT you would classify your drinking and/or drug use as _____, Do you remember how you were assessed at IMPACT? Whether you were assessed as social use, harmfully involved use, or dependent use?

- 1 --- social use
- 2 --- harmfully involved use
- 3 --- dependent use
- 9 --- don't know / refusal --->GO TO #56
- b --- missing

54. Did you agree with that assessment?

- 0 --- no
- 1 --- yes
- 9 --- don't know / refusal
- b --- missing / not applicable

55. For what reasons did you dis/agree?

- 9 --- don't know / refusal
- b --- missing / not applicable

56. Was a referral recommendation given to you by your IMPACT facilitators? (prompt: for example, to treatment, or for counselling, or for different recreation or leisure activities)

- 0 --- no --->GO TO #60
- 1 --- yes --->GO TO #57
- 9 --- don't know / refusal --->GO TO #60
- b --- missing

57. What were the referral recommendations?

- 00 --- none
- 01 --- AA
- 02 --- NA
- 03 --- AADAC (general)
- 04 --- Driver Education
- 05 --- doctor/hospital
- 06 --- AADAC detoxification
- 07 --- AADAC inpatient
- 08 --- AADAC outpatient
- 09 --- other _____
- 10 --- other _____
- 11 --- other _____
- 99 --- don't know / refusal
- bb --- missing / not applicable

58. Did you agree with the referral recommendations?

- 0 --- no
- 1 --- yes
- 9 --- don't know / refusal
- b --- missing / not applicable

59. What were some of the reasons that you dis/agreed?

- 9 --- don't know / refusal
- b --- missing / not applicable

60. Were you referred to IMPACT by the Driver Control Board?

- 0 --- no
- 1 --- yes
- 9 --- don't know / refusal
- b --- missing

CHECK ABSTRACT TO CODE #60

61. Did you have to follow through on the facilitator's referral recommendations to get your license back?

- 0 --- no
- 1 --- yes
- 9 --- don't know / refusal
- b --- missing

62. Have you taken any action on your own to change your drinking or drug use, and prevent impaired driving?

By "action" I mean any personal steps you have taken such as seeking assistance from friends, family, church, etc.

00 --- No

99 --- don't know / refusal

bb --- missing / not applicable

yes: What sort of action?

63. Have you followed up on any of the referral recommendations, or used any other treatment facilities or services related to decreasing your use of alcohol and/or drugs, since attending the IMPACT weekend of _____?

0 --- no --->GO TO #65

1 --- yes

9 --- don't know / refusal --->GO TO #65

b --- missing

NOTE: g's = don't know / refusal
b's = missing / not applicable

0 - very dissatisfied
1 - somewhat dissatisfied
2 - somewhat satisfied
3 - very satisfied

What services have you used?	How soon after IMPACT did you use the service? (in weeks)	How long did you use the service? (in weeks)	Overall, how satisfied were you with the service?	Please tell me why you feel this way?	FOR OFFICE USE ONLY
1.					— — — — —
2.					— — — — —
3.					— — — — —
4.					— — — — —

Next, for those referral recommendations which you did not follow up, what were some of the reasons that you did not follow these through?

65. referral recommendation: _____

999999 --- don't know / refusal
bbbbbb --- missing / not applicable

66. referral recommendation: _____

999999 --- don't know / refusal
bbbbbb --- missing / not applicable

67. referral recommendation: _____

999999 --- don't know / refusal
bbbbbb --- missing / not applicable

68. referral recommendation: _____

999999 --- don't know / refusal
bbbbbb --- missing / not applicable

Finally, a few questions about how you felt about the IMPACT weekend.

69. How much did IMPACT help you to prepare for situations in which you are at high risk to drive while impaired?

- 0 --- not at all
- 1 --- not much
- 2 --- somewhat
- 3 --- a great deal
- 9 --- don't know / refusal
- b --- missing

70. Overall, how satisfied or dissatisfied were you with the weekend?

- 0 --- very dissatisfied
- 1 --- somewhat dissatisfied
- 2 --- somewhat satisfied
- 3 --- very satisfied
- 9 --- don't know / refusal
- b --- missing

71. For what reasons were you dis/satisfied?

72. In your own words, what kind of an effect do you feel IMPACT has had on you?

- 9 --- don't know / refusal
- b --- missing / not applicable Time _____

That is the end of our interview. Do you have any questions?

Thanks very much for your time. Good-bye.

APPENDIX B
Other Findings

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Table B.1: Age of IMPACT Participants

Age Range in years	Study Sample (n = 505)	Sub-Sample Interviewed (n = 167)	86/87 Fiscal Yr Attendance (n = 1,879)
14-19	1.3%	.2%	1.4%
20-29	46.1%	38.7%	46.7%
30-39	31.3%	34.6%	29.2%
40-49	13.7%	18.1%	13.3%
50-59	4.7%	4.7%	6.3%
60+	2.9%	3.7%	3.0%
Total*	100.0%	100.0%	99.9%

* Total percentages may not equal 100% due to rounding.

Table B.2: Gender of IMPACT Participants

	Study Sample (n = 505)	Sub-Sample Interviewed (n = 167)	86/87 Fiscal Yr Attendance (n = 1,879)
Men	95.2%	97.6%	95.2%
Women	4.8%	2.4%	4.8%
Total	100.0%	100.0%	100.0%

Table B.3: Age of AIDC Participants

Age Range in years	Study Sample (n = 300)	86/87 Fiscal Yr Attendance (n = 11,863)
14-19	4.7%	6.4%
20-29	38.2%	45.1%
30-39	34.2%	27.6%
40-49	15.1%	11.8%
50-59	5.1%	6.5%
60+	2.7%	2.6%
Total	100.0%	100.0%

Table B.4: Gender of AIDC Participants

	Study Sample (n = 505)	86/87 Fiscal Yr Attendance (n = 1,879)
Men	89.3%	89.3%
Women	10.7%	10.7%
Total	100.0%	100.0%

Table B.5: Summary of Comments About Changes in the Area of Physical Health (in Percent of Total Number Participants n = 161)

No or little change	47.8%
Positive Comments	
Feel better, more energy	34.2%
Less withdrawal symptoms (e.g., shakes, hangovers)	12.4%
Weight change	11.8%
Take better care self (e.g. eating better)	10.6%
Fewer chronic medical problems	3.7%
Negative Comments	
Feel worse (e.g., tired)	3.7%
Not taking care of self (e.g., eating poor)	3.1%
Physical effects related to use (e.g., injuries)	2.4%

**Table B.6: Summary of Comments About Changes in the Area of Job/School
(in Percent of Total Number Participants n= 146)**

No or little change	49.3%
Positive Comments	
Improved work performance	29.5%
Better/different job	14.4%
Not late or missing work	11.0%
More satisfied with work	9.6%
Not hungover or drinking at work	6.2%
Education/career plans	6.2%
Improved relations with coworkers	4.8%
Negative Comments	
Poor work performance	2.1%
Drinking at work	2.1%
Lost promotion due to no licence	1.4%

**Table B.7: Summary of Comments About Changes in the Area of Social/Leisure
(in Percent of Total Number Participants n = 160)**

No or little change	33.1%
Positive Comments	
More social activities without alcohol/drugs	43.8%
Changed friends/friends supportive	18.1%
Decreased alcohol/drug use (e.g. go to bar less)	28.1%
Improved relationships with friends	16.9%
Negative Comments	
Relationships with friends worse	6.3%
No/poor social life	6.3%
Social pressure to use alcohol &/or drugs	2.5%

**Table B.8: Summary of Comments About Changes in the Area of Family
(in Percent of Total Number Participants n=158)**

No or little change	44.9%
---------------------	-------

Positive Comments

Improved family relationships (e.g., less conflict)	48.1%
--	-------

Enjoy & spend more time with family	16.5%
--	-------

Family lifestyle change (e.g. married, had baby)	10.1%
---	-------

Other (e.g., helping other family with substance problems)	1.9%
---	------

Negative Comments

Lack of family support	3.2%
------------------------	------

Alcohol &/or drug use effecting family	1.9%
---	------

**Table B.9: Summary of Comments About Changes in the Area of Emotional
Health (in Percent of Total Number Participants n = 152)**

No or little change	44.1%
---------------------	-------

Positive Comments

Feel better about self	51.3%
------------------------	-------

Fewer bad feelings (e.g. guilt, anger)	12.5%
---	-------

Stronger emotionally	9.9%
----------------------	------

Increased spirituality	9.2%
------------------------	------

Negative Comments

Bad feeling (e.g., irritable, depressed)	3.3%
---	------

No spiritual involvement	.7%
--------------------------	-----

**Table B.10: Summary of Comments About Changes in the Area of Finances
(in Percent of Total Number Participants n= 132)**

No or little change	56.1%
---------------------	-------

Positive Comments

Spending patterns have changed (e.g., save more, pay bills)	35.6%
--	-------

Doing better	15.9%
--------------	-------

Negative Comments

Spending on alcohol &/or drugs	1.5%
-----------------------------------	------

**Table B.11: Summary of Comments About Changes in the Legal Area
(in Percent of Total Number Participants n= 131)**

No or little change	67.2%
---------------------	-------

Positive Comments

Fewer legal problems (e.g., less contact with police)	20.6%
--	-------

Decreased legal costs	7.6%
-----------------------	------

More law abiding	3.1%
------------------	------

Negative Comments

Reconvicted for impaired driving	3.8%
-------------------------------------	------

Served jail time	1.5%
------------------	------

Other (e.g., being watched by police)	.8%
--	-----

Figure B.1: Percent of Participants Likely to Remain Offence Free

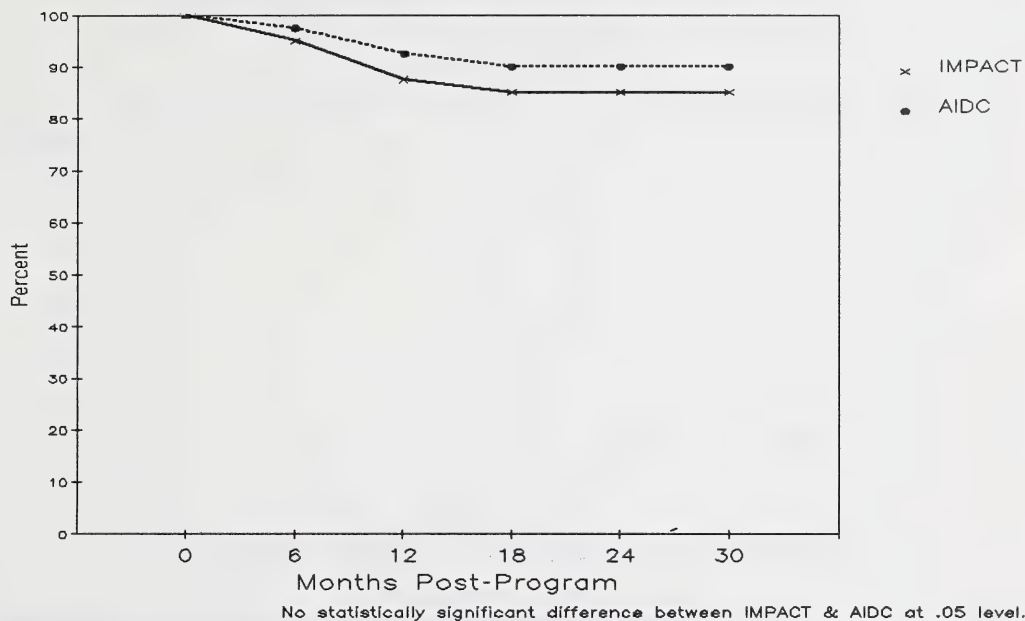


Figure B.2: Percent Likely to Remain Offence Free of Study Participants with Less Than 1.5 Years Legal Driving Time Post-Program

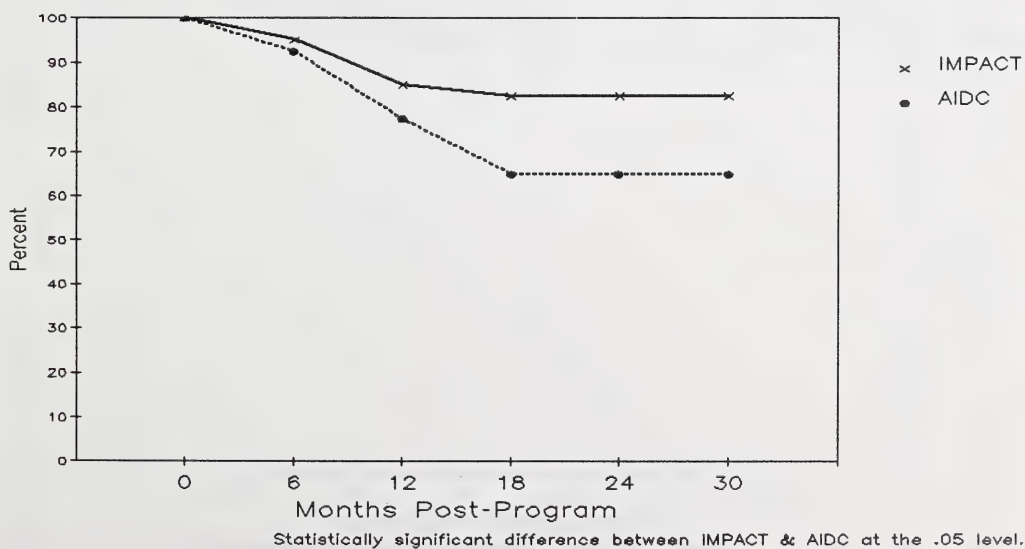


Figure B.3: Percent Likely to Reoffend of Study Participants with Less Than 1.5 Years Legal Driving Time Post-Program

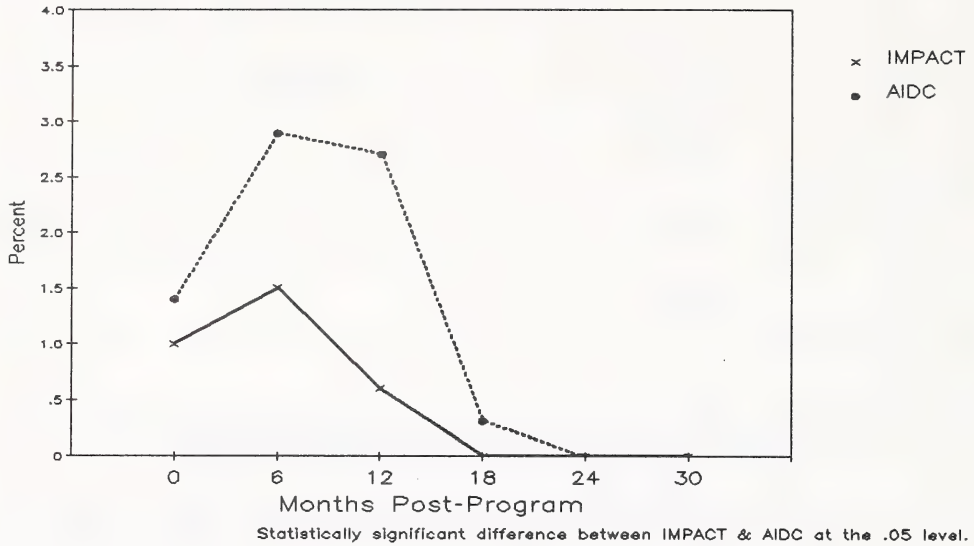


Figure B.4: Percent Likely to Remain Offence Free of Study Participants with 1.5 to 2.5 Years of Legal Driving Time Post-Program

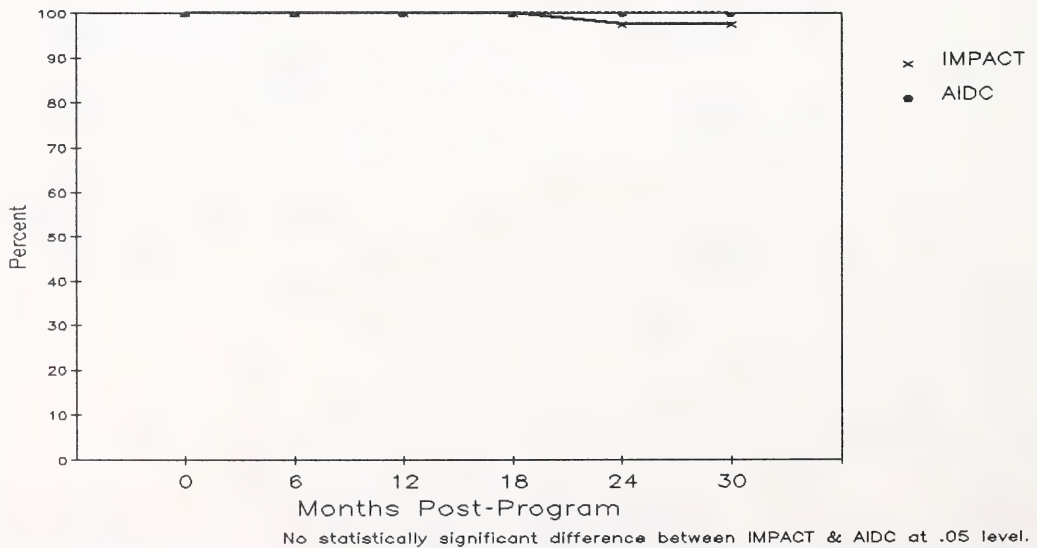


Figure B.5: Percent Likely to Reoffend of Study Participants with 1.5 to 2.5 Years of Legal Driving Time Post-Program

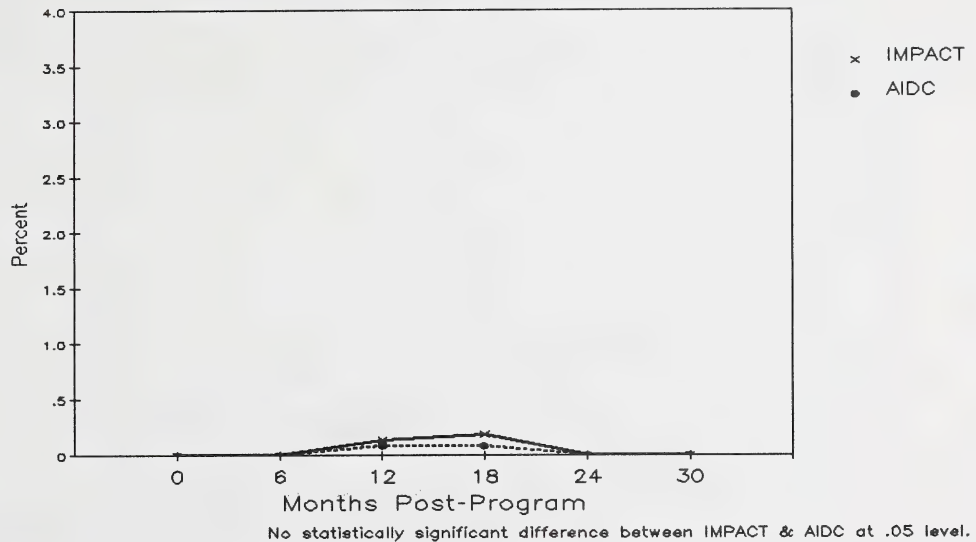


Figure B.6: Percent Likely to Remain Offence Free of Study Participants with 0 to 3 Other Driving Convictions

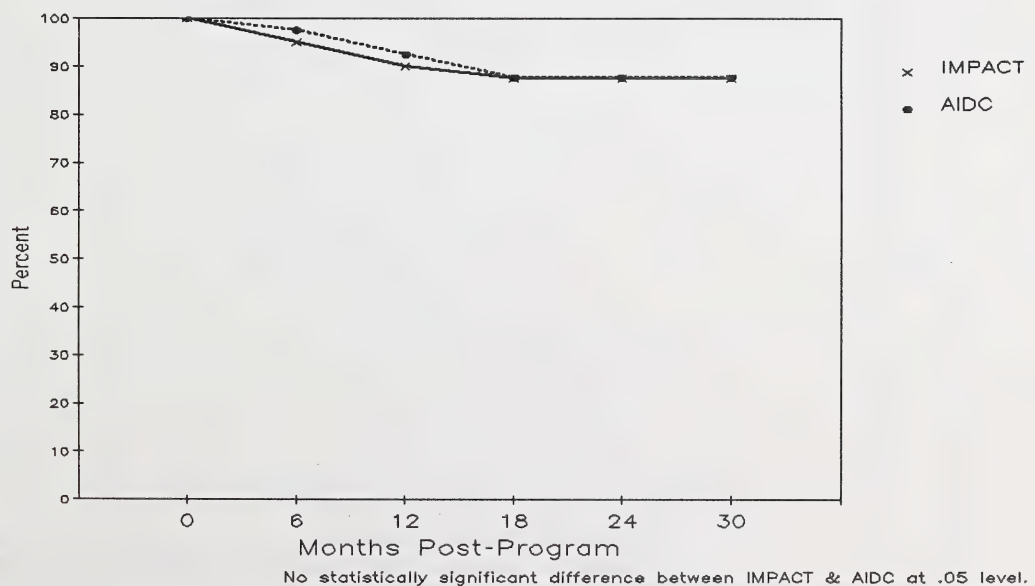


Figure B.7: Percent Likely to Reoffend of Study Participants with 0 to 3 Other Driving Convictions

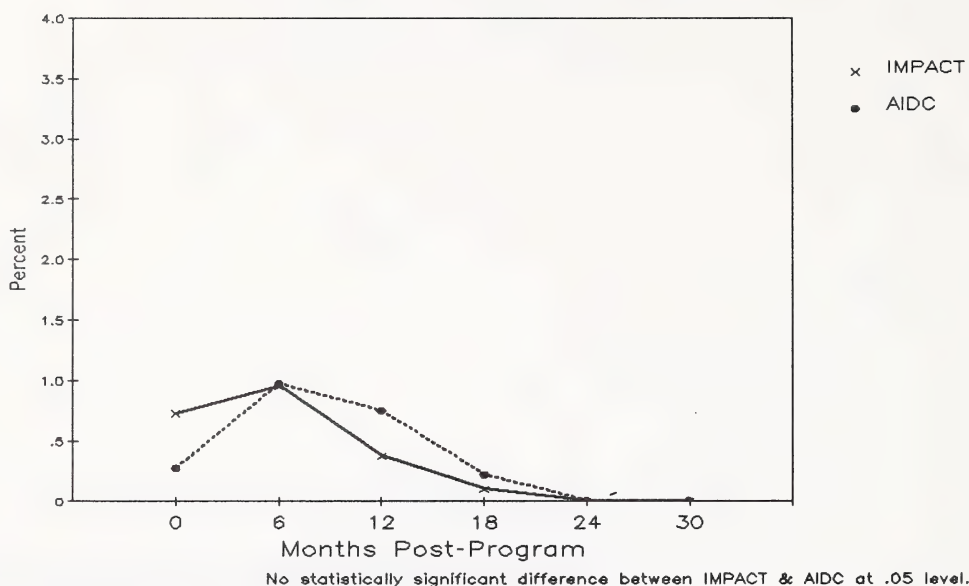


Figure B.8: Percent Likely to Remain Offence Free of Study Participants with 4 or More Other Driving Convictions

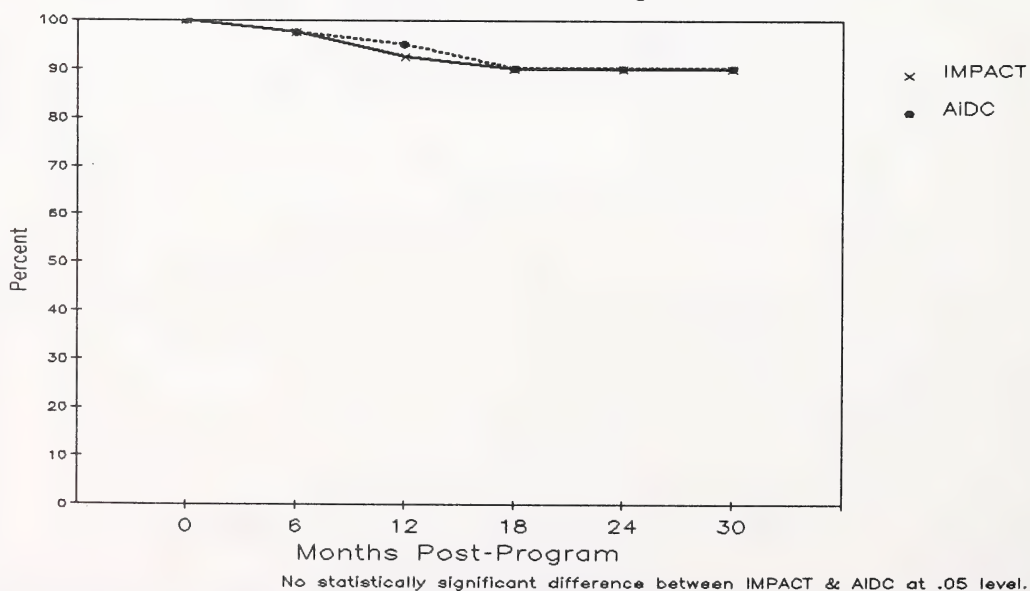
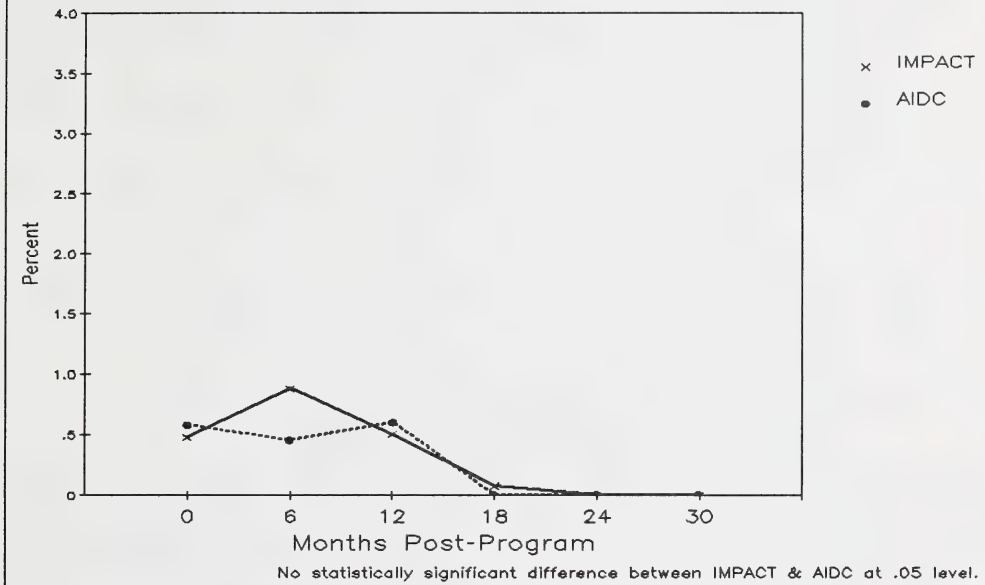


Figure B.9: Percent Likely to Reoffend of Study Participants with 4 or More Other Driving Convictions



APPENDIX C
IMPACT Participants' Comments

**In darkness I lived.
Scared. Alone**

**The bottle my only friend.
Cheat. Liar.**

**Now there's hope in my life.
Friends. Support.**

**There's light in my darkness.
Love, A.A.**

**Thank you for the light
An alcoholic and past IMPACT participant**

COMMENTS FROM IMPACT PARTICIPANTS WHO WERE INTERVIEWED

Following are some of the responses of participants to two questions asked in the telephone interview. These comments are not exhaustive; rather, they are examples of the most common responses received from participants.

1. Overall, how satisfied or dissatisfied were you with the IMPACT weekend?

"I didn't mind it. I knew most of it. I liked meeting other people. Would be good if a person could arrange to meet the guys after, otherwise you just fall back into the same old rut."

"Food was very healthy. Group lectures were interesting. It is hard to go to IMPACT. A lot of guys go with a shitty attitude and by the end of the weekend their attitude changes."

"I liked the speakers (AA) and the other guys (participants). Useful talks."

"The different ways about each person's drinking. Realized I'm not the only person with a drinking problem. The different channels you can take not to drink & drive. The group sessions were good."

"I learned a lot from lectures. Got to meet people that I still know."

"Had to go to IMPACT to get my licence back."

"Not just lectured to, individual participation. I became involved. People could express themselves. People evaluated themselves, instead of someone else evaluating them."

"Got me away from my life for a weekend and allowed me to concentrate on my problems. This way I had 48 hours with no family and no alcohol to really focus on problems."

"I had to have assurance that I was in the right place at AA, that alcohol was the whole problem. At IMPACT I heard so many things that I needed to hear."

"Right on. It was on a weekend so I didn't have to miss work. The films were boring."

"A good program, but I knew most of it. Liked the food. Could have been more thorough, some people don't take it very serious."

"Got a lot of info like how much I could drink in an hour, how long alcohol is in the blood. Learned a lot. Found alcohol was affecting most of my major life areas. Learned I had to be careful around those areas."

"I hated the group sessions; they were tough. Found the films and talks interesting."

"I didn't like being there. It gives you time to think, you can't avoid it. Liked hearing other peoples' stories, good discussions. Not everyone was honest."

"It was tough to go 3 days without a beer."

2. In your own words, what kind of effect do you feel IMPACT has had on you?

"I got my impaireds in '85 and it got me thinking that maybe my drinking was out of control. So I went to Claresholm in Jan'86 for 3 weeks. I didn't get a lot out of IMPACT after having been to Claresholm. I think IMPACT would be good for first offenders. And if impaireds are recurrent, then send them to a 3 week program like Claresholm."

"Hard to say. Now I stay overnight instead of driving after drinking."

"IMPACT helped keep me out of the court system and saved me money. There are other things in life besides getting drunk and stoned, like my girlfriend. I think 16 year olds should have at least one day to show what can happen, things like jail. This would decrease 30% of the impaireds."

"IMPACT changed my whole view. It helped me realize that drinking & driving is no good."

"Good, for the better. I haven't drove impaired again. Wouldn't mind taking it even if didn't have to. Lots of info, taught different things."

"Quite a big effect because started me thinking about drinking. Helped, but kind of forgot about it. It did some good for about a year, then forgot about it."

"Little effect. Initially for first while IMPACT helped. Then I drove while impaired once, and then another time and it got easier. But not very often only 4 times since IMPACT. It helped cut down the impaired driving."

"I went in with a bad attitude, to have to spend a weekend after 2 weeks in jail, and I left with a different attitude. The 1 day course is a waste of time. People go there and sleep. But 3 days of group sessions meant something. Really enjoyed it. It really opens your eyes up and gives you lots to think about. Even now when I go to the bar, I think about how to get home. Opens your eyes about home life also."

"IMPACT helped. Although I drank for a while after, IMPACT was one of the moving forces to get me sober. I wasn't very happy at first (about being there), but happy about participants. Much more effective than just lectures. You're with others who have some problems. Could talk freely. Good weekend. Highly recommend it."

"Had a large effect. Opened my eyes to what it can do, leading to dependency. I thought I could handle it, but eventually I got out of control and got into trouble with it -- fight, accident. It made me aware of what alcohol is. The main thing is that you can't force people to go to IMPACT; it will only have a temporary effect. But for people who really want to change it is very good."

"I was one month in AA at the time and IMPACT helped me see that I was an alcoholic. It showed films about DT's and hallucinations. I liked the therapy and presentations, all leading to the idea that people have problems. Helped me accept being an alcoholic. I'm not sure I would have felt this way in '83, when I tried to quit before, because wasn't ready to hear these things before. You have to be ready, you have to hit bottom."

"It made me realize what could happen. In the back of my mind I knew, but I blocked it. One thing I didn't like; it was hard to leave those guys (other participants). It would be nice to get together again and see how they're doing."

"It made me see what drinking was all about. At first, I thought it was all bullshit, but it really helped me. I hope it helps others."

"I don't think IMPACT stopped anybody from drinking. Only way can do anything is if do it for yourself. Can't make people stop in 2 days. I don't think it changed anyone there. For everyone drinking equals a good time and action. Everyone was about the same, just more careful about drinking and driving. It helped me not to drink and drive so much. Lots of things have changed, got better, but not because of IMPACT, because of my common law partner."

"You get what you put into it. There were guys who were obvious "chronics" and did not want to be there. At the time I was pissed off at myself. It taught me a lot that I knew, but I didn't want to admit. I was getting married in the summer and I knew I had to get a grip or I would ruin everything."

"Not much effect on me personally. If want an impact at all, have a mandatory brush up course. May be just 8 hours, not 2 days."

"Mostly it was an inconvenience. Just one little course, no big healing process. It was more of an inconvenience, lost money from work. It wasn't a month long dry out, not a big ordeal. Good effect. I'm more cautious than before, but more because of impaired than IMPACT. More because I could lose licence for life. Good because had to think about impaireds and have never done that before."

"Really benefitted. The one day course is a joke. It opened my eyes, helped me decide about drinking, and I helped others at IMPACT. The more honest you were the better it was."

"Immediately after IMPACT I was more cautious about drinking and driving. I never drove at all when I drank. But the effect wore off in time and it didn't effect my drinking."

"I think everyone should go who gets caught. I missed the Grey Cup. It opened my eyes to drinking and driving stuff. Helped me not to drink and drive, but it didn't effect my drinking. I still like my beer with the boys, but I never drink and drive."

"It emphasized my thoughts on drinking and driving. Losing my drivers licence and money was deterrent enough for me not to drink and drive."

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